

# THE COMMERCIAL CAR JOURNAL

Volume XXX  
Number 6

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PHILADELPHIA, FEBRUARY 15, 1926

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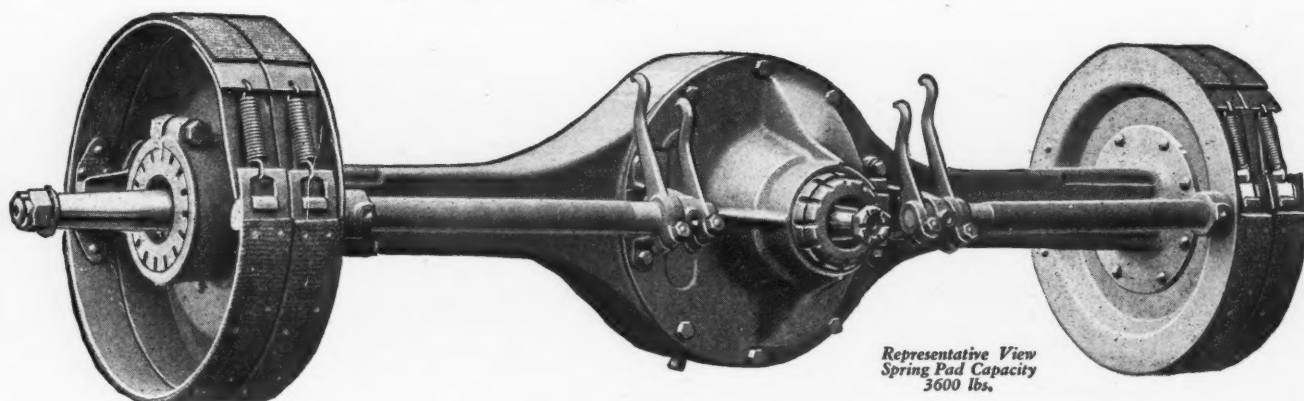
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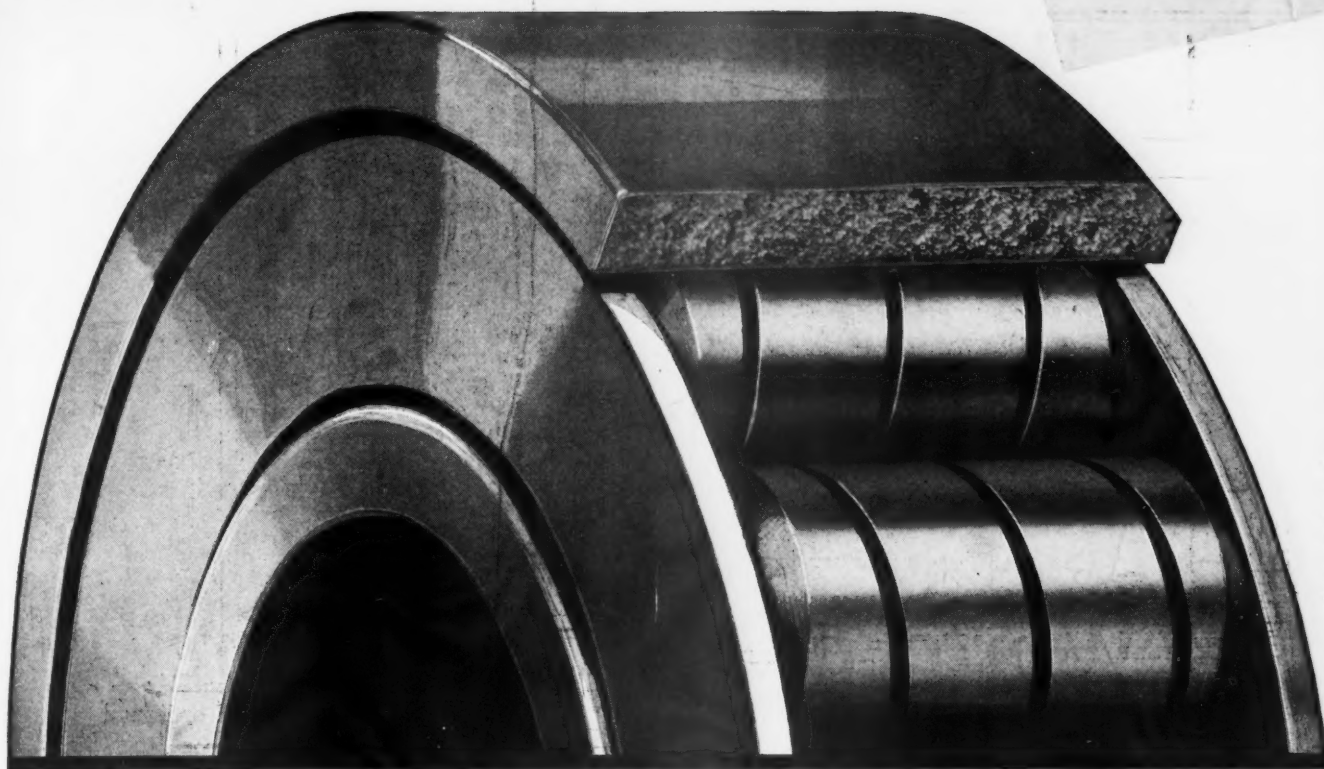
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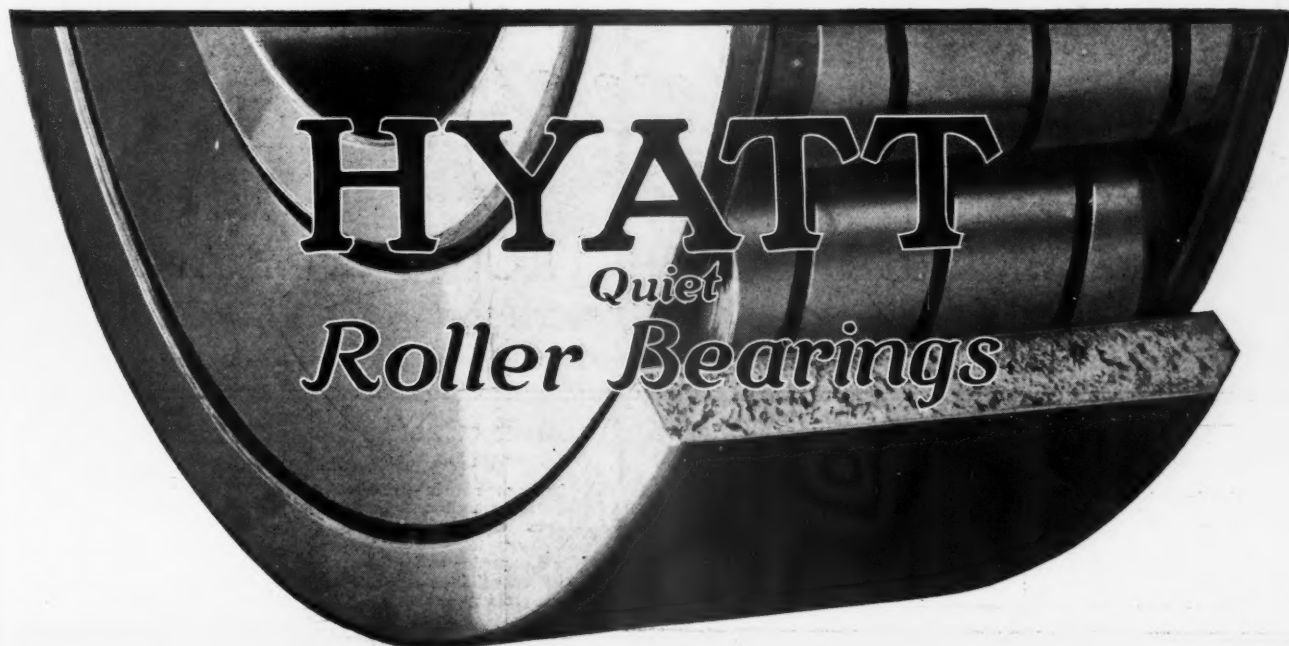
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# THE COMMERCIAL CAR JOURNAL

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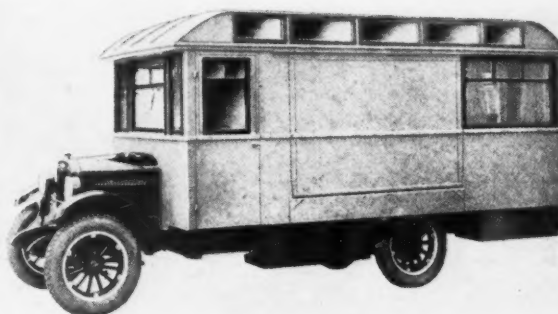
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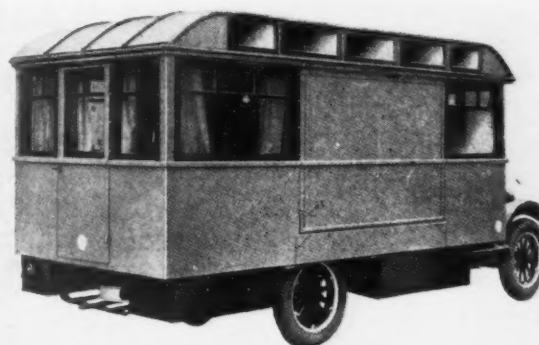


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# The Commercial Car Journal

VOLUME XXX

PHILADELPHIA, FEBRUARY 15, 1926

NUMBER 6

## The Motor Truck IS A 100% UTILITY

Says the Banker

Motor Transport in its various ramifications discussed before World  
Motor Transport Conference and Annual Open Motor Truck  
Convention—Vocational selling and good service seen  
as business aids

**T**HE Second World Motor Transport Congress and the Annual Open Motor Truck Meeting, both functions which were held in New York last month under the auspices of the National Automobile Chamber of Commerce, stressed the importance of motor transport as a world-wide utility. Two hundred delegates from all parts of the world listened with interest to the addresses on sales, service and financing, receiving information from American manufacturers which given impartially cannot help but increase the use of motor transport throughout the world.

President Clifton, of the N. A. C. C., hailed the delegates by saying, "That the purpose of the meeting was to increase motor transport facilities all over the world, without selfish advantage to any country. The world market is limitless, there is room for the trade of all countries and the problem for every nation is to work for road development, just laws and taxes."

"Vocational Selling as a Business Aid," was the subject of an address made by M. L. Pulcher, president of the Federal Motor Truck Company. In his address he compared the vocational selling idea so much talked about in the automotive industry, with the specialization selling methods which have been in use by other industries for many years. "The selling of motor trucks is essentially no different than selling any other commodity" said Mr. Pulcher. The great trouble in the past has been that salesmen have been selling the mechanical superiority of the units instead of a real transportation service.

"In the United States there are about 1800 lines of business using commercial haulage. Naturally this does not mean that salesmen must solve the intricate problems of this many businesses because many of them have kindred problems. If this number of businesses were carefully segregated it will be found that there are about 40 main industries which have similar problems. It still would be a hopeless task to train salesmen to successfully handle this number of businesses. Although he could call on many of these industries he would still be a truck salesman and not a well educated, well informed transportation engineer.

### The Salesman Specializes

"The solution is to have salesmen in your employ who are thoroughly conversant with two or three allied lines of businesses. For instance we have a salesman in one of our metropolitan cities who has made an intensive study of the transportation problems of laundries, dyers, cleaners and tailors. He specializes on these vocations. So careful has his study been of these allied lines that he is being called in by many companies to come in and give his recommendations as to the proper truck installation.

"Vocationally directed selling does two things for the dealer:

First—it provides the dealer with the means of studying his market and shaping his selling messages to appeal to certain specific groups.

Second—it enables the dealer or the salesman to more economically and profitably direct his selling by spe-

cializing his effort on vocational groups that are known to need trucks and are financially able to purchase them.

"Vocational selling is a natural development of the demand for more intensive merchandising. It is a means of sending a salesman's energy where it will produce the greatest results at the lowest possible cost.

"One of the most important features in connection with a smooth running vocational plan is to have complete co-operation with the field and the home office. I mean by that, to have someone at the factory whose job it is to supply the selling force with the necessary data and statistics on the various industries, to enable the man to intelligently complete his education on the particular group he is handling.

It is usually the Sales Promotion Department that is the Clearing House for this sort of information and, from my viewpoint, it is essential that the man heading that department be one who has had wide experience in the field, and one who can appreciate the salesman's problems as he meets them every day.

"It has been proven in the past that many sales plans or systems, if you please, have been ruined because of the theoretical nature of the information provided by the home office.

"Another step in the advancement of vocational selling is to be represented at the various business shows, such as held by bottlers, bakers, laundries, road builders, etc. Special literature should be prepared featuring use of your product in that particular industry, and also to have on exhibit the type of truck that

is most adaptable for their transportation requirements.

"If salesmen are to follow the vocational plan it is quite evident that they must be familiar with all of the phases of the customer's transportation problems. For instance, it is not enough for a truck salesman to know his truck—he must also have an intimate knowledge of bodies, labor saving devices of every nature, such as roller platform bodies, demountable bodies, conveyors, elevating trucks—in fact everything that will in any way affect the ultimate end which is to secure transportation for the customer at the lowest cost per ton-mile.

"In conclusion, I want you to know that I am conscious of the fact that there is a great element of danger regarding the vocational plan of selling. In some cases it has been developed that the salesman spends so much time gathering the information and working out his own pet plans for tabulating it, etc., that his productive selling effort is cut down to a prohibitive degree. Therefore it is imperative that any distributor using this plan make it as simple as possible and outline it so complete in detail that any sales organization in the field can follow it without a burdensome amount of 'red tape.' "

## Truck and Bus Business Just Started

GEORGE E. ROBERTS, Vice-President, of the National City Bank of New York, addressed the Motor Truck Meeting on the subject of "Business Conditions and their Relation to the Motor Truck Industry." He sketched the beginning of the automotive industry and how bankers had no faith in the future of the industry, whereas today the automobile crop has a greater value than the wheat crop or the cotton crop, or even the corn crop, or of the wheat and cotton crops put together. The industry developed in spite of the bankers and out of its own earnings.

"The truck end of the industry hasn't had as sensational a development as the passenger vehicle, but it is coming fast," said Mr. Roberts. I understand that in selling value the output of trucks is about one-fifth that of passenger cars, and while we must be coming somewhere near the saturation point on passenger cars, we are probably not much more than beginning on trucks. Whatever question there may be about the percentage of utility in passenger cars, it is a certain thing that the truck is a 100 per cent utility.

The advantages of the truck in the elimination of congestion around rail terminals were touched upon as well as the elimination of unnecessary handling of merchandise.

Getting back to the topic of his speech, on business conditions, Mr. Roberts cited Mark Twain, where in one of his stories, he related his first trip down the Mississippi to New Orleans as a cub to a pilot.

He said that the first trip down the river to New Orleans the pilot pointed out to him the various landmarks he was steering by, a house, a fence, a dead tree, the point of a bluff. Mark paid careful attention, and when they arrived at New Orleans he thought he knew the river pretty well. But when they started back he found that the steering points were all different, and he had to learn an entire new set. Well, he set himself to do it, and when they got to the end of the trip, he thought that now

he really did know the river, both coming and going. But by the next time they got down to the lower river there had been heavy rains over the Mississippi Valley and a freshet was on. Then he found that the pilot was paying no attention to the marks he had used before. He was cutting across sand bars that he went around before, where he had formerly hugged close to the bank he was now sailing down the middle of the stream, and in general seemed to be going as he pleased. Then Mark began to understand what kind of a job it was to pilot. "I want to know," he said "if I have got to learn this river all over again every time it rains!"

"Judging the business situation," said Mr. Roberts, is a good deal like judging the river. The conditions never exactly repeat themselves. The general factors may be about the same. It isn't difficult to name the principal factors in the situation at any time, but when it comes to giving them their proper weight in relation to each other at different times, and taking account of all the elements of uncertainty, that is a different matter. Nobody can do it.

"In Wall St. there is a phrase 'When, as and if.' What I say regarding the business condition is to be taken 'when, as and if.' What is prosperity? Why is business better at some time than at others?"

"A state of prosperity indicates a well balanced state of industry and business. Our system of business and industry is now complicated. Each man is doing some one piece of work which he is exchanging for his wants. This is a fine situation when everything is in balance, but it has defects, as every system which is highly organized and complicated can get out of order and difficulties arise when it is out of order. Price relationship of various commodities must be in balance for prosperity to exist.

"There is no supreme guiding power for the entire business condition of a country as there is for an individual business. But, in usual times the price situa-

tion acts as a guide and a fair state of balance exists. Into this situation came the great war, the greatest disturber of modern times. It disrupted, changed prices, currency, etc. In going up, the prices kept together very well, but in coming down they came down very unevenly which upset the balance so violently that we are only now beginning to get over it. In other industries prices fell rapidly. Farm products fell very quickly. In every country there was an agricultural crisis.

We have gone through the crisis better than other countries have but the buying has not been in the country but in the industrial sections of the country. What has made conditions better lately is the changed condition of the farmer. In fact the only complaint the farmer has today is in the corn belt where the corn price is low. The reason is apparent. The only use for corn is to feed animals. Last year short crops cut down the breeding stock. This year with plenty of corn there are no hogs to feed. This makes the corn a drug on the market and puts the stock at a premium, in other words resulting in a loss of balance between the hogs and corn which has disturbed the farmers in the corn belt and destroyed their purchasing power. This, however, is merely a temporary situation which during the course of the next two years will be cured.

"Outside of this farm situation a fair state of balance prevailed and consequently we can count on good business.

"Some people fear European competition but there is no fear of this in the automobile situation. Europe is going to buy more cotton, copper and meat and consequently the farmer will profit from this additional European business and Europe's buying power is going up.

"Regarding the banking situation, we have never had a serious situation or a crisis which did not come after price and credit inflation. This brings deflation; without it we will have no serious condition. We have had no general state of inflation since the war. Some stocks are too high but no bank crisis exists. There has been building and land speculation in certain parts of the country but this is only local and not sufficient to upset the general stability. The banking situation is comparatively good and we have a great credit reserve. There were just enough symptoms of speculation around the edges of the business situation, however, for Reserve banks to give notice to the effect that there is a hand on the brakes. But, as we see it now, it is not a menace to the business situation."

GEORGE P. MCCALLUM, President, Michigan Highway Transportation Association spoke on the "Attitude of Motor Truck Owners Toward Proposed Interstate Truck Regulation." McCallum expressed himself in favor of bringing the bus under the supervision of the Interstate Commerce Commission but thought there should be some modification in the proposed bill. These modifi-

(Continued on page 10)



# Engineers Aim to Meet Public's Desires in Bus Design

Better Riding Qualities; Scientific Reduction of Bus Weight,  
Heating and Ventilating of Bodies Are All Problems  
Now Confronting the Bus Builder

By W. L. CARVER

**W**HAT does the riding public want and what will best meet the requirements and convenience of the passengers? That this question is the criterion of bus design in all phases was the keynote of the papers presented at the Motorcoach Session of the Detroit S. A. E. Meeting. This statement was crystallized in so many words by Mr. Frank Fageol's paper and was confirmed by the speakers from the International Motor Co., A. F. Masury and L. C. Josephs, Jr., who covered such features as the elimination of vibration, heating and ventilation.

Of only slightly less importance are the subjects of operating costs and maintenance as in order to fulfill the constantly increasing demand for motorcoach transportation service, the operator must keep his vehicles running at a profit. Throughout the presentation of the papers and the discussion, these points formed the foundation of statements pertaining to any detailed phase of design or operation.

## Gas-Electric vs. Gear Box

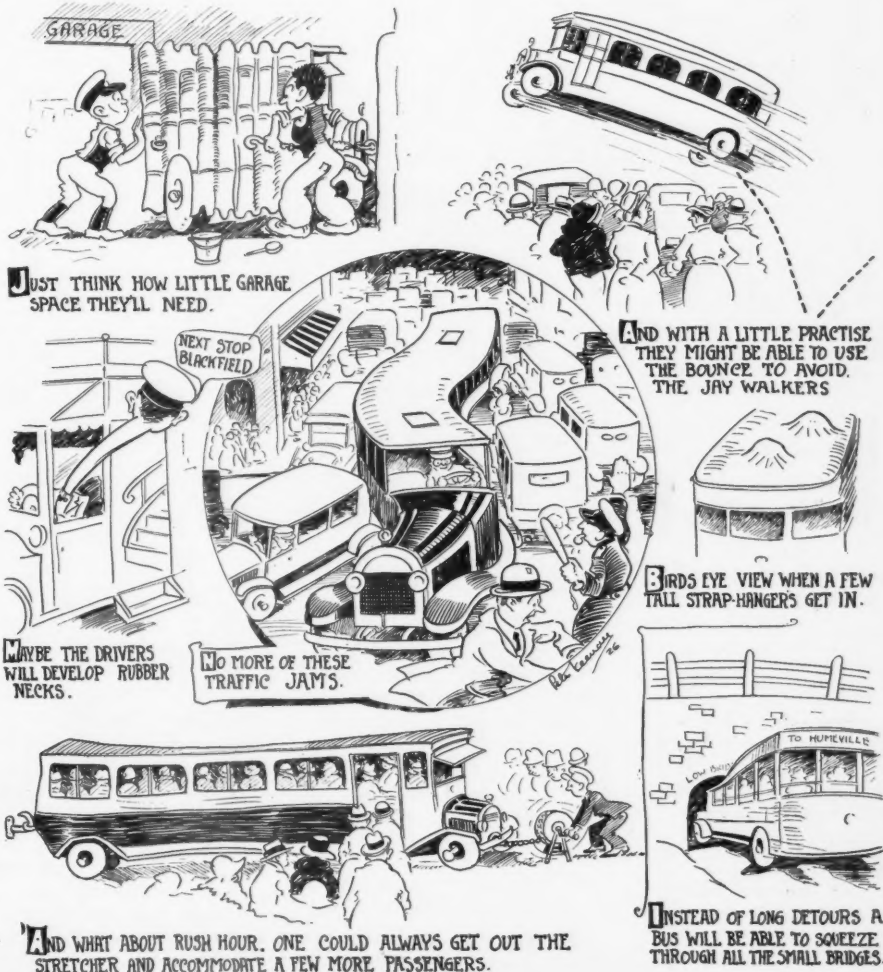
Concerning the relative future of the gas-electric and the gear box type of coaches, Gordon Lee who presented Mr. Fageol's paper stated that the question of public taste and choice will be the determining element. Because of association with the mechanical acquaintance of street railway companies, he stated that in his opinion the gas-electric type may be a great influence in breaking down the diminishing wall of prejudice against the motor coach which has existed among railway executives. Further, that bus or motorcoach transportation is a natural monopoly and thus will ultimately come under government supervision as are the existing public utilities and in the process, will come into its deserved position.

Briefly, Mr. Fageol's paper, "Problems in the Development of Body and Chassis" recited the historical and mechanical background of the Safety Coach. About six years ago, he and his associates started out with the idea of short-cutting the process of evolutionary development from existing forms of transportation. In the process, the development of the railway engine from its earliest form to the present reliable mechanical unit and

the transition from the stage coach to the steel car of today was examined as was the growth of the modern passenger car from the earlier one-lunger. The psychology of the public's attraction to any given form of transportation was an important part of this analysis.

This study combined with an intensive effort devoted to the design and correlation of mechanical units and chassis produced the coach which is regarded as the forerunner of the modern motorcoach. Low roof height and center of gravity were obtained by a wide tread

and kicked-up frame. The worm gear and mechanical gear box were chosen for their established characteristics and the frame and body were correlated in a design of some flexibility. The elimination of vibration, all-around economy of operation and maintenance and high power at all speeds were outstanding requirements. These in turn were predicated upon the needs of the operator and the already fixed riding habits of the public. As the bus must travel at high speeds because of these habits and have an equivalent decelerating ability, Westing-



The All-Rubber Bus of 1935

house air brakes were adopted as the solution of this problem and that of long life.

Upholstery and fittings were based on closed car ideas but had to be developed to the demands of motorcoach service. In conclusion, Mr. Fageol stated that most recognized motorcoach manufacturers had gone to the upper extremes of weight and that the immediate problems of design now involve the scientific reduction as the type of vehicle seems to be established for years to come.

#### Rubber Increases Passenger Comfort

**P**ASSENGER comfort was the subject of Mr. Masury's talk which was illustrated by a number of lantern slides showing the application of rubber to many points of the bus. In his opinion, the cushioning of units and prevention of the transmission of vibration from one unit to another and possibly remote units is just as important as it is essential to use pneumatic rubber tires. In conjunction with this idea he also showed and explained two instruments which have been developed for the study of transmitted vibrations, the source of which may be road shock or one of the mechanical units. Both of these recording instruments have some of the characteristics of the seismograph. Their use has had great effect on the entire design and has taken the question of spring suspension out of the field of personal impression.

To illustrate the application of these ideas, Mr. Masury showed and described the application of the rubber shock insulators to the spring ends. Similar compressed rubber insulators have been placed at the engine support arms and in a recent design compressed rubber bushings are placed on the radiator brace rods. The gas tank has been found a great source of transmitted vibration, a late design has this unit carried in straps which terminate in rubber bushings. A propeller shaft brake assembly has been mounted in shock insulators inside of the body, rubber blocks are used in a new aluminum seat structure to provide additional cushioning and insulation from vibration. This adaptation also has some effect in reducing the inertia effect on the passenger when starting and stopping.

#### Ventilation and Heating Problems

**H**EATING and ventilating as important factors in the comfort problem were discussed by Mr. Josephs in his portion of the paper. He stated that practically all parts of this country require some heating provision but that present bus heating and ventilating facilities are most inadequate. While the low figure of 350 cu. ft. per hr. per passenger is sufficient ventilation for the bus, its attainment is not easy, as for a single deck, 29 passenger body about 16 transfers per hr. of the total volume of the body are involved.

Ventilation must be secured without perceptible drafts which occur when air velocity reaches 2-3 ft. per sec. Many

of the suction ventilators for roof installations are woefully inadequate and much room for development exists. The best type with no restrictions will transfer about 7,200 cu. ft. per hr. when travelling at road speed. Other possibilities, and Mr. Josephs states that all should be used, are obtained by placing the carburetor air intake inside of the body. At 30 m. p. h. from 9,000 to 12,000 cu. ft. per hr. can be transferred. Then the pressure at the rear and partial vacuum at the front of the body interior can be utilized. The cowl ventilator offers some possibilities in summer operation. Window leakage ordinarily is a considerable problem but the ventilation should be obtained with reckoning this as an aid. Finally ventilation should be partially controllable by the operator so that adjustment may be made to the load and character of the run.

Basically, heating is in about the same class as ventilation. No one source is adequate unless oil or coal heaters are considered and these require too much floor space and attention. The engine exhaust contains several times the required amount of heat but only a fraction is available for heating purposes. The restriction in this case is the high temperature of the exhaust which may be 1,100 deg. although a maximum of 200 deg. or slightly more is needed for the heating system. An exhaust jacket will reinforce the exhaust pipe line but is subject to some limitations as fumes from under the hood are driven back into the body by the fan blast.

#### Recommends Seamless Steel Tubing

**S**TEAM cooling offers a new field for heating the coach body, but Mr. Josephs is in some doubt about its floor space requirements. He states that the heating units of any type should be placed near the floor and close to the outside walls of the body. If exhaust piping is used, he recommends seamless steel tubing inside of the body and particular attention to joints, as leakage is an outstanding problem. Metallic guards should protect the passengers from direct contact with the heater pipes. The exhaust outlet should be equipped with some diffusing means to facilitate mixture of the exhaust with the atmosphere.

During the discussion, representatives of the Fageol and International Motors showed some difference of opinion as to the proper location of the exhaust outlets. The first company places these outlets ahead of the left rear wheel while the latter places the outlet at the rear of the coach. Each claims that the other arrangement is conducive to bringing exhaust odors into the interior of the body.

During the discussion, representatives sidelight on the cost of bus operation was brought out by Mr. Pierre Schon of the General Motors Corp. as the result of his direction of a large fleet in Louisiana. For buses of 16-20 seats, the average cost of operation is approximately \$0.01 per seat per mi. With buses of smaller seating capacity, the cost is greater and where the seating capacity exceeds 20 passengers, the unit cost per mi. is less.

## Truck and Bus Business Just Started

(Continued from page 8)

cations had to do with the changing of certain sections which favored the railroads as opposed to the bus.

He believed, however, that the bus should come under centralized regulation because at the present time it is now being regulated by thirty-six different states and as such a large percentage of bus travel is of an interstate nature it would be better to have a central regulation than individual regulation by each of the states. He spoke of the growth of the bus stating that it is now possible to travel from New York to San Francisco by bus. He believes that the monopoly under control was necessary in order to render the best service to the public and at the same time protect the bus enterprises. As soon as capital becomes interested, destructive competition ceases, he stated. At the present time there are 470,000 miles of hard road affording opportunities for bus line operation.

Mr. McCallum pointed out that in requesting legislation for regulation of the buses he was not including the truck, which had its separate problems. Mr. McCallum also stated that he believed that there should be a closer union between the operators of bus lines and the manufacturer of buses, particularly in states where bus operation had grown to large proportion. He stated that in Michigan the Operators Association would permit makers to be members of the operative body. McCallum stated that in consideration of the entire situation that the electric traction, steam and bus interests had agreed in the main but disagreed on details which will be thrashed out before the I. C. C.

**T**HEODORE D. PRATT, General Manager of the Motor Truck Association of America and Chairman, Truck Users National Conference, talked vigorously against the bill along the lines of his previous speeches on this subject. He pointed out very clearly that the putting of the truck transportation business of the country under the Interstate Commerce Commission would be sufficient to kill the truck transportation industry. He cited how transportation over the road had been killed for several hundred years in England by this same type of legislation. He said the bill would prevent the development of the industry and also brought out very clearly the intolerable conditions which would be imposed on traffic in the border line cities and states.

He showed that the bus situation was an entirely different one from that of the truck and that while the former might require some sort of protection because of the complications due to handling human freight and necessity against destructive competition, the truck is an entirely different situation and needs a competitive condition in order to develop.



# The Last Half of This Year

## *Why Put Skids Under It?*

By C. A. Musselman

President, CHILTON CLASS JOURNAL CO.

FOR years we have been taught that the mental attitude of the public toward business has a great effect upon volume, and therefore it is difficult to understand why statisticians and leaders of finance and industry are now broadcasting the message that the first six months of 1926 are to be excellent, but are intimating that there may be a considerable curtailment of prosperity the last six months of the year.

Why should this pessimistic note prevail, and for what reason does the average man accept these statements as gospel and think in these terms without studying the subject carefully. Is it because men are like sheep and when a stampede is started they all go in one direction?

When you deal in futures, you deal in uncertainties, and there is no one who can predict accurately what is going to happen the first or the last six months of 1926; and since business is so materially affected by what people believe and say, would it not be wiser to predict a satisfactory condition for the entire year?

On what real, constructive theory is the statement based that the last half of the year will not be satisfactory? History has taught us that for many generations you can strike an average of seven good years for every three poor ones, and as we passed through the lean post-war period and are now on the upgrade, why should we look for trouble a few months ahead? Don't most people spend most when they have most? If this is so and the first six months of 1926 are money-makers, won't the last six months be made active by the money spenders?

It is always wise to be conservative and have one's house in order so that if things do not

reach the standard of the optimist, it is possible to readjust expenses in order to make a profit even on a reduced volume.

But is it wise to deliberately try to create an impression that business will be lean the last half of the year?

No industry has ever demonstrated more thoroughly the value of optimism and energy than the automobile trade. If its manufacturers had years ago concluded that the saturation point had been reached and had ceased to expand factories and sales organizations, you would probably today find that our dear public would be satisfied with ten, instead of twenty million cars. Optimism, energy and progressive methods have sold automobiles where it was seemingly impossible to sell them. It is true that the car industry has depended—to a certain extent—for its prosperity upon the success of all business, so why don't the men—the progressive men that we have in the great automobile industry—try to stem the tide of pessimistic talk about the last half of 1926?

If all business is good the first half, should there not be enough momentum, enthusiasm and prosperity to carry us along serenely the second half?

These are questions to be considered and dealt with by everyone with large or small business interests, for we should not accept the predictions of the men who are following the lead of the few, especially when most of these predictions are based primarily on theory.

Let us make the **whole** of 1926 a big year, and not split it in half, keeping ever in mind that all destructive gossip is harmful.



# From a Modest Start to a Million Turnover in Four Years

*How a Southern Dealer, Starting With Modest Capital  
in 1921, Built Up a Big Truck Business by  
Youthful Enthusiasm, Pep and Thoroughness*

By Morris A. Hall

**T**HIS is just a simple tale of what one man did, not at all wonderful, so he says, but sounding very big when summed up in a few words as in the title above. When he came back from the other side in 1919, H. S. Baggs, a Georgia chap, took a job as a truck salesman in Atlanta. A short time later he was in charge of sales in a South Carolina city northeast of Atlanta, but looking for a bigger opportunity.

## Furnished Knowledge and Pep

Happening to go to Winston-Salem, North Carolina, he found a man named Norfleet with money to put into the truck business. Thus was the firm of Norfleet-Baggs, Inc., Winston-Salem Dodge and Graham dealers, born. Baggs furnished the youthful zip and go, enthusiasm and knowledge of truck selling; Norfleet arranged quarters in a frame building 40x60, corner of South Main and Belwus Streets.

This was in 1921, and in that year the margin of profit was small, only 2½ per cent. However, that was satisfactory all around for a beginning. Through the energy put into the business, the total in 1922 was greatly increased and the percentage of profit pushed up to 3½. Going into new and larger quarters diagonally across the street and beginning to branch out into the Dodge truck line in 1923 boosted the total again, and the percentage also went



H. S. Baggs. Enthusiasm and knowledge of truck selling is his forte

up to 4½. In 1924, with a still higher total, due partly to taking on the Graham line of trucks, and partly to accumulated good will, the profit was up again to 5.4 per cent. And now the turnover is expected to exceed a million each year.

## Was a Truck Enthusiast

Although selling passenger cars, Baggs must be described as a truck enthusiast; no other term will fit. He believes in trucks; he thinks in terms of trucks; he knows what trucks can and will do; he wants to put a truck into the business of every firm in his section of North Carolina. That is, every firm which can use a truck to advantage, for he considers that the truck must be fitted to the business. He sells them as so much transportation, and will not sell one until he is satisfied that the business needs one.

Naturally, that involves a whole lot of study of various businesses, but somehow these Southern firms, with their fine sense of courtesy, do not seem to mind that. He goes or sends his men right into their shipping rooms, right into the heart of their delivery systems, digs right down into the amount of freight going out, the amount coming in, the distances each must be hauled, how it is being hauled now and what that costs, etc.

Then he or his men sit down and



Over 31,500 sq. ft. of floor space and a strategic location

analyze the data to find out how, when or where that business could be bettered by the use of a truck in the sizes they have to sell. If they can not figure it out that way, they tell the man so frankly, either recommending that he stick to what he has, or that he buy big, heavy trucks, or something else, according to what their extended thorough survey shows.

#### Sold Many Trucks

As a result Baggs has sold a great many trucks, and as these have done just what he said they would in the way of performance, he is now beginning to reap the harvest of good-will which those surveys planted. It might be summed up by saying that he did not make the mistake of overestimating or overstating, despite his enthusiasm and the foreknowledge of a need for what he had to sell.

The original frame building measured 40x60, giving 2400 sq. ft. The present buildings consist of a large brick two-story building on Main Street, running back to the next street. The width is 110 ft., the total depth 180 and the floor space 31,500, or slightly more than 13 times the original space. The rear portion is a 1925 addition, this now housing parts stock and sales, reception or garage space, making up the street frontage and very large repair shop, extending across the building immediately behind these two.

About three-quarters of the frontage is taken up by salesrooms for the new and used car departments. The offices are in the rear of, and on a mezzanine above the sales. Directly behind is the storage and service departments. Here are stored new cars and trucks, in excess of those shown on the sales floor. The second floor front is also used for storage of new and used cars and trucks.

A number of distinctive methods have been developed by Mr. Baggs. As previously stated, Baggs is a truck enthusiast and by far the greater part of his sales are of trucks. In these the Graham predominates, the approximate proportions being 80 Grahams to 20 Dodges.

#### Must Show a Profit

For one thing used trucks must show a profit. Every truck taken in, no matter what its condition, is put into shape where it can be guaranteed and is sold at a figure which shows a profit over and above the allowance plus all money spent on it, also plus all overhead charged to it.

Some one says, "It is a good trick, if he can do it." The only answer to that is that the absence of used trucks on hand show that he sells them, while the books prove the profit part of it.

On each and every used car or truck he keeps records in a method all his own. All papers referring to the car or truck are kept in a special file, in 8x5 manila envelopes, one envelope for each truck. On the face of this envelope are printed spaces for all information relative to car and engine numbers, work done on it, cost of this work, how and when sold, what price, what terms, record of notes taken and the profit made on the job.

## Significance:

All Sales Predicated on Needs.  
Used Trucks Moved with Profit.  
Employees' Special Used Truck Record.  
Sincere Follow-up Inspection.  
Creates Work for Service Shop.  
Flat Rate Service Maintained.  
Trade-ins Based on Resale Value.  
Develops Expert Appraisers.  
Locates and Stops Leaks.

Inside the envelope are kept the shop and other papers, records, time slips, contracts, etc., from which this information is summarized, and from the face of the envelope, a summary of this is transferred to the books. It is simple, efficient and thorough. It gives all the information relative to this one truck in just one place. There is no dispute as to what was allowed for a truck because it is put down on this blank form when the truck is taken in.

There is no question, either, about what was done to put the truck in shape, because all of that work and its cost,

either in the Norfleet-Baggs shop, or in some outside shop, is put down on the blank.

Thus, if a purchaser of a used truck were to come in and say that the battery in the truck was not in good shape, a glance at this card would show date on which it was received and checked up, what was done to the battery and what it cost, also when the truck went out. And should the customer doubt any of this data, it is only necessary to open the envelope and take out the time slips, inspector's report, outside bills, etc., to prove it.

#### Prevention Cure

Another of Baggs' pet ideas is that prevention is cheaper than cure as well as better for all concerned. So he has an inspection system for all the trucks he has ever sold, used as well as new. When he sells a truck, he tells the new owner that he must bring it in for inspection at regular periods, say every other month or so. Usually the buyer thinks this is just a jolly and considers that that is the last he will ever hear of the inspections.

But not so. Within a reasonable period some one following up these various trucks calls up on the telephone and asks when it will be convenient to have the truck driven in to Norfleet-Baggs for inspection. And sticks at it until he gets a positive promise for a nearby date.

When the truck comes in, it is gone over thoroughly. Details are recorded on an inspection blank. Opposite every item found satisfactory an O is marked, opposite those adjusted an A, and opposite those which need shop attention an X. If the case warrants, these are explained under the columns remarks.

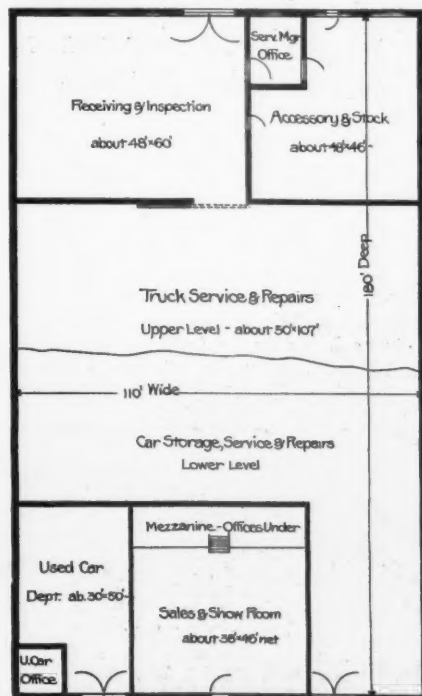
The blank will show all those parts which had any attention whatever, whether needing work done on them or not. This blank is made in triplicate, the first or white copy going to the driver, the second yellow copy being mailed to the owner, and the third, a heavy manila card being filed in the shop.

#### Knows Truck Condition

By this system the driver knows the condition of the truck, for barring accidents, these frequent inspections prevent anything untoward developing. Also the owner of the truck knows the condition of his truck at all times, and by filing these he has a complete record of its history from the day of purchase. The shop copy gives Norfleet-Baggs a chance to recommend shop work, for items requiring adjusting time after time, indicate something wrong, while those calling for shop attention indicate what work must be done right away.

When there is such work to be done, a letter goes out to the owner with the yellow copy, calling his attention to this work and asking him to send in the truck so as to have this work done at an early date.

In the planning of the newest part of the plant the upper level just finished off late in 1925, the stockroom, which is



Lay-out of New Building

(Continued on page 39)



Beauregard Parish, Louisiana, has the best equipped and organized school transfer system in

## Mississippi Transports 63,535 Pupils Daily by Buses

*In 1925, 67% of the rural enrollment was in consolidated schools. The Motor Vehicle made this possible.*

*Consolidated schools represent a big market for buses*

*By A. W. Roe*

**T**HE Little Red Schoolhouse is doomed; it is rapidly passing from the picture of American education. In fact, it has just about faded from view in at least two southern states. Louisiana and Mississippi are strongly entrenched with consolidated schools. While the innovation of the motorized transfer did not start the movement of centralized schools, the use of such transfers has made possible the rapid and successful growth of the idea. Wagons were formerly used.

### Only Solution for Rural Sections

Centralization of schools in these states has long since passed the stage of experimentation. School authorities and community leaders agree that it is the only solution for educating rural children.

The saving in time is probably the biggest advantage of the motor transfer over the horse-drawn vehicle. More pupils can also be carried in motor

### The Beauregard Parish:

*Spends \$72,000 a year  
Has 40 uniform buses  
Covers 7 transfer centers  
Contracts for drivers  
Buys buses on time*

buses than in wagonettes. Furthermore improved roads bring with it an even lessening cost of transfer per pupil.

In 1925, Mississippi had 862 consolidated schools as against 69 such schools in 1913, three years after the consolidation plan was put in in Mississippi with

two schools in 1910. Of 144,498 pupils in the consolidated schools of the state in 1925, 63,545 were transported. In 1925, 67 per cent of the rural enrollment of Mississippi was in consolidated schools. See chart on next page.

### Buses Used Extensively

"The centralized country unit plan in Louisiana has been in operation a number of years," according to E. S. Richardson, recently elected President of the Louisiana State Teachers' Association. Prof. Richardson is also superintendent of education of Webster Parish, a county in which motor transfers are being used extensively."

Continuing, he said, "That the public has approved of the centralized plan is evident by the number of one-room schools that have been eliminated during the past few years. According to the report of the State Superintendent of Public Instruction there are left only



Forty-three units are operated under the supervision of Webster Parish, Louisiana.





the state. The fleet comprises 40 buses of uniform type and conveys 1500 children daily

about 600 one-room schools in the state, 1300 auto transfer trucks having been put on to take care of 40,000 country children."

Having been in operation just five years, the transfer system in Webster parish today is well developed. Sketching the history of the movement in Webster, Prof. Richardson said:

"Four and one-half years ago there were thirty-nine school centers here, thirty-five of which were small indeed, and were served by the proverbial country schools. In many cases these schools were taught by second and third grade teachers having little or no experience. With such limited school opportunities the country children were forced to be content with an elementary education, unless their parents were financially able to board them away from home.

#### Gross Inequalities Existed

"After making a very careful survey of the whole parish, the superintendent appraised the school board of the gross inequalities that existed in the parish. The superintendent convinced the board that such inequalities were unfair and undemocratic and should be corrected. As a result of this survey, the board authorized a campaign of school publicity among the people of the more wealthy paying centers.

"Since that time the board has authorized the abandonment of twenty-four of these small schools and has divided the parish into ten high school communities embracing all the territory of the parish. In each of these communities, there has been erected commodious buildings, ample to take care of all the children in the respective area. During this time the number of high schools have increased from four to ten and the people have voted over \$500,000 in bonds, the money from which has been spent by the board for schools. The sites for these buildings were selected and buildings planned.



E. S. Richardson

Superintendent of Education, Webster Parish, Louisiana. Staunch supporter of Consolidated schools and buses.

Date	Schools	Enrollment	Transported	Teachers' Homes	Consolidated Investment in School Plants
1909	0	0	0	0	0
1910	2	205	65	1	8,000
1913	69	7,150	3,120	8	40,000
1915	163	13,865	6,489	20	129,140
1917	290	33,037	14,643	35	289,625
1920	470	61,821	30,772	98	1,022,522
1923	751	117,673	44,034	226	9,461,051
1925	862	144,498	63,545	330	10,747,040

In 1925, 67% of Rural Enrollment in Consolidated Schools.

#### Showing the Mississippi Educational Evolution

"In order to take care of the children living beyond the two-mile limit of these centers, 43 auto truck transfers are being operated. The school board maintains

seven small-room schools. Auto transfers are provided to take care of the children in these schools above the seventh grade.

"The consolidation of Webster Parish Schools has developed good road sentiment among the country people. They are demanding good roads and are voting money to make them passable the year around for school transfers. Farmers will not permit a bad piece of road to keep the school transfers from getting to school on time.

#### All Benefited and Prospered

"Webster Parish farmers are greatly pleased with the school organization for the reason that their children can receive the advantages of a high school education without having to board or move to town. They can have their children around their firesides at night, and at the same time they are getting the same type of training as is being given the children of the merchants and bankers; and, too, their farms have greatly enhanced in value on account of the success of consolidation. The bankers and the merchants are pleased because the country and the towns are now the same great community. Urban and rural prejudices have been eliminated; corporation lines are no longer dead lines for country people."

Answering specific questions about the transfer system in his county, Prof. Richardson said:

"Forty-three trucks are now operated under the supervision of the parish school board. The bodies for these trucks are made under directions of the board in Minden, La. These bodies are placed on Ford trucks. No person is allowed to use any unit other than the one planned by the school board.

"Trucks are owned by individuals. We pay them from \$100 to \$150 per month, the owner furnishing the truck and seeing that it is properly driven to and from

(Continued on page 38)



The trucks are owned by individuals who are paid from \$100 to \$150 a month

## What Makes the Brakes Squeal?

What Are Causes of Squealing and Grabbing and How to Remove Them Was the Subject of a Special Session Devoted to This Important Service Problem at the Detroit Meeting of the S. A. E.

**T**HE large attendance and the extensive character of the questions and discussion, apparently proves that the subjects of brake squeaking and the effects of temperatures on brake linings is one of considerable importance in the industry. Not only were the talks confined to the technical brake experts, but engineers from several bus companies as well as the operators of truck and taxicab fleets sought information.

It was generally indicated that most of the noise resulting from brake application came from two sources; namely, brakes not being in perfect adjustment and secondly the entry of foreign matter into the brake band thereby setting up ridges on the brake drums. The popular theory that most of the squealing issues from rivet heads coming in contact with the drums was not entirely upheld.

### Variable Coefficient of Friction

In H. H. Allen's paper entitled "The Effect of Change of Temperature of Brake Linings on their Performance" it was stressed that in practically every case there is a drop in the apparent coefficient of friction with a rise in temperature of the brake lining material. Where the linings are wetted with oil or water there is a lower apparent coefficient of friction.

Tests were made by the Bureau of Standards on a passenger car which carried the complete apparatus for measuring the temperature of the brake linings.

Thermo-couples placed directly in the shoes carrying the lining enables the temperature to be read of any brake, or the temperature could be read of the front set of brakes and correspondingly on the rear set or again the whole set could be registered. Curves thrown on the screen showed clearly the percentage change in the frictional properties with rise in temperature.

With brakes soaked in oil there is less difference in apparent coefficient of friction than when brakes are water soaked. Tests were conducted on several of the prominent brands of brake lining and the results showed a great variance in performance. This may be attributed to the fact that certain brands of lining are more suited to some brake designs than others.

Fourteen methods of possible prevention of brake squealing, the practicability of some of which may be doubted, were men-

By  
**LESLIE S.  
GILLETTE**

tioned by F. C. Stanley in his paper on "Causes of and Remedies for Brake Squeaking." Chief among the preventative methods were: The use of castor oil, rosin oil, nests foot oil and certain forms of graphite; rubber between band and lining at points of highest pressure; metal shims; rounding of brake bands; using lining with no brass wire; prevention of the entry of grit and steel into the lining; elimination of water; eliminating contact of brass rivets from drum surface and the use of softer lining.

It was pointed out by Mr. Stanley that squeaks originate as a rule through drum vibration which is undamped by proper contact of the lining with the drum. Stanley said the ordinary drum is a bell with a high pitch which yields its tone when in contact with friction material. Damping may be best accomplished by so shaping the band that sufficient contact may be formed as to prevent vibration.

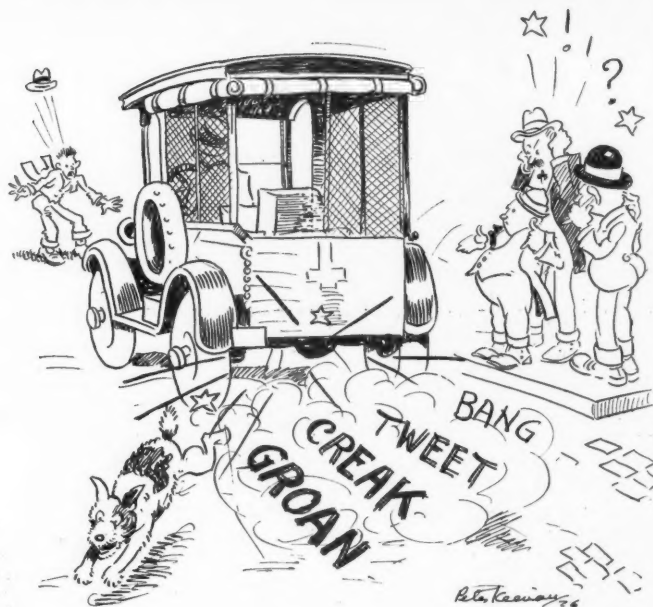
### Better Brake Drum Material

Aside from better brake adjustment and the insuring of accurate concentricity of the brake drums, Stanley said the use of higher carbon steel of approximately .40 to .50 carbon content in the drums would prevent scoring and the consequent squeak. When brakes are properly adjusted at the factory silencing may be accomplished by careful adjustment. Stanley does not recommend the employing of juice, wafers, or dope when a permanent cure of squealing is desired.

A method was illustrated which indicated that drums do not have to be replaced should the cost be too high, if the drums have become badly worn. A remedy is to pry apart the lining with a screwdriver between the rivets and to insert twelve tin shims of .25 in. thickness equally spaced around the lining.

### Grabbing Brakes

Many interesting views were brought out in the discussion in which the representatives of several brake lining manufacturers participated.



Grabbing brakes apparently have been causing considerable trouble and in most cases were experienced in the early morning. This was explained by the fact that washing the vehicles during the night had swollen the lining through the entry of water into the brakes causing the condition, while the forming of rust spots on the drum resulted in squeaking at times.

### Heavier Connections Recommended

One speaker stated that he noticed that the greatest squealing occurred on vehicles which had the lightest weight braking mechanism and recommended that heavier connections be employed. Trouble had also been cured he said, by proper lubrication of the clevis pins.

Squeals are said to be divided about 50-50 between external and internal types of brakes. A Fifth Avenue coach representative stated that brake squealing on certain buses had been cured by removing a portion of the lining directly opposite the opening. He made an amusing remark that frictional electricity generated in the braking system on several buses had given the passengers a shock when they caught hold of the rail to enter or leave the bus.

Two constructive suggestions were made with regards to brake lining. If the lining is secured to the band in sections (as is employed in a few cases) the bands are given greater opportunity to flex with the consequent improvement in effectiveness. Furthermore it was recommended not to make the rivets flush with the lining but to have the heads countersunk at least 1/16 of an inch. While aluminum rivets have proved satisfactory specially during the war when copper and brass were not available, their extensive use is not recommended.

Mention was made of a metal brake lining manufactured on the Pacific coast and that the metal to metal contact had proved successful on several vehicles for a number of years.



# The Ruggles Model 70 Coach Chassis

THE model 70 coach chassis recently brought out by the Ruggles Motor Truck Co., of Saginaw, Mich., embodies many features recognized as necessary for increased operating efficiency. It has been built with the idea of ruggedness and service ability foremost in mind, and is adapted for both single and double deck bodies as well as 29 passenger parlor car coach bodies.

The standard capacity of the single deck street car type body for this chassis is 19 to 23 passengers, while the double decker rates as a 60 passenger. All bodies are being built complete in the new Ruggles body plant, making this company one of the few in the bus field producing complete jobs entirely within its own facilities.

The entire chassis is built up on a 9 in. frame, having a 3 in. flange which is continuous in section from the dash to the end of the rear spring. The section at the front of the frame is slightly tapered to permit the building of the chassis as closely to the front axle as possible. The kick-up over the rear axle is a continuous one-piece section,

9 in. deep, of the frame rail itself. All cross members are of cast steel of heavy I-beam section. This chassis is powered with a 105 b.h.p.  $4\frac{1}{2} \times 5$  Wisconsin engine. The engine is lubricated by force pressure, even to the rocker shaft on which the valve rockers are mounted. The engine is cooled by centrifugal pump system using a Perfex cellular cored radiator, having a total exposed frontal area of 730 sq. inches.

The transmission is a Brown-Lipe—model 60, connected to the engine through a large heavy duty multiple dry disk clutch. The drive is through a 3-section, heavy duty propeller shaft and 4 universal joints.

The front axle is a special heavy duty I-beam, dropped sufficiently to permit a low frame height. Spindles are mounted on ball bearings giving easier steering and the turning angle of the wheels is  $38^\circ$ , permitting a turning radius of 35 ft. with the 236 in. wheelbase.

The rear axle is a Wisconsin 66 double reduction, full floating type. The entire double reduction and differential assembly is mounted on a single carrier

which is easily accessible or removable for replacement parts or adjustment. This axle has a spring pad allowance of 13,000 pounds and has ample capacity for the largest single or double decked bodies.

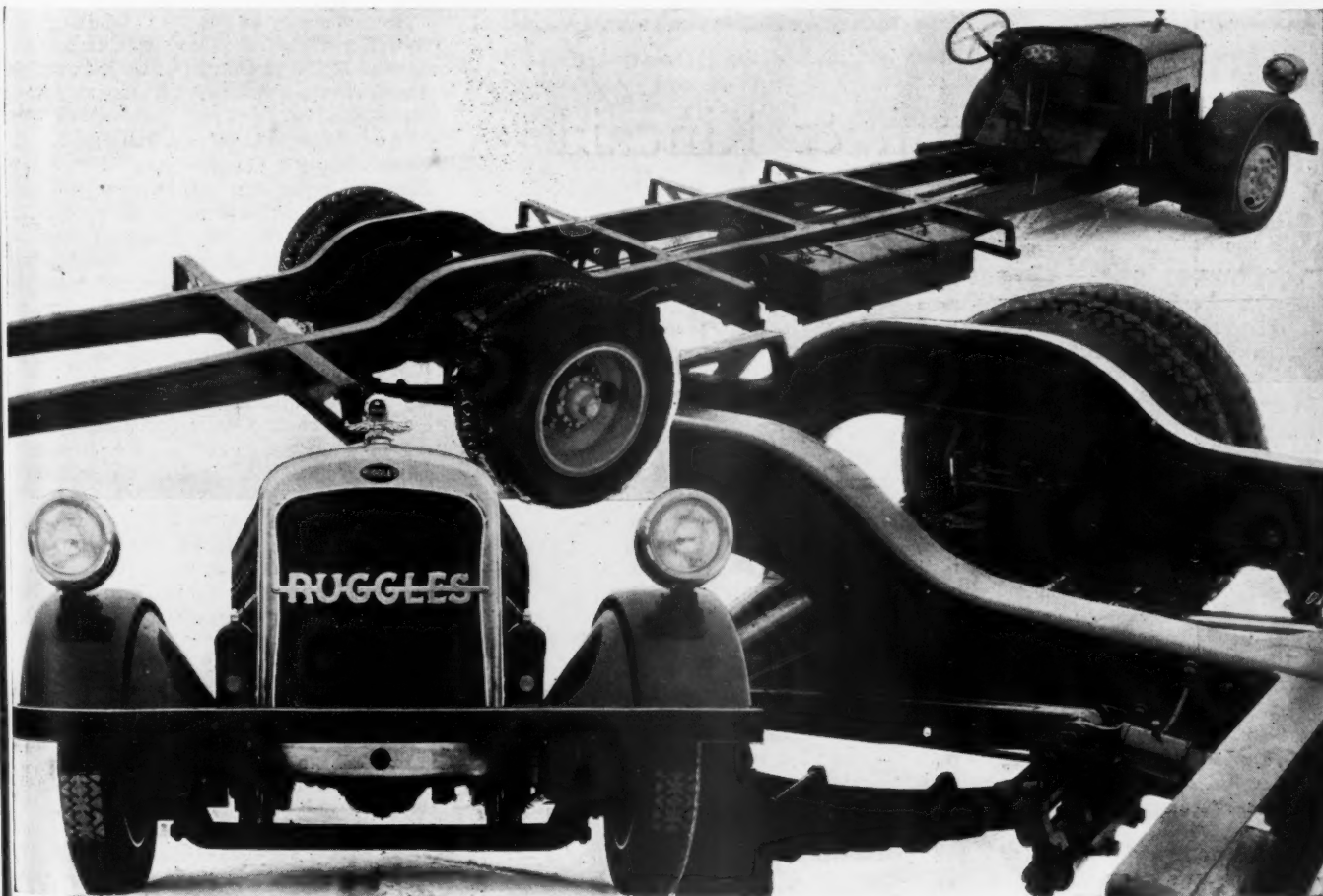
Particular attention is called to the braking system. All brakes are on the rear axle. Each wheel is equipped with two concentric bands, both internal expanding and of the floating type. All bands are operated by means of hook type cams. These, together with the floating band arrangement, insure perfect brake band contact with the drum around the entire circumference. The inner set of brakes are  $13\frac{1}{2}$  in. in diameter and 3 in. wide and connected to the hand lever for emergency. The outer set of brakes are 18 in. in diameter, and  $4\frac{1}{2}$  in. wide. These are used for the service brake and are connected to the foot pedal through the Bragg-Kliesrath Vacuum Booster Brake.

The overall chassis length is 343 in. Distance from dash to rear of frame  $279\frac{1}{2}$  in. Dash to center of rear axle  $199\frac{1}{4}$  in.

The electrical equipment consists of a 6-volt Remy heavy duty starting motor; 300 watt coach generator and 200 ampere hour storage battery.

A Jacox worm and split nut type gear steering is used with 20 in. walnut wheel.

The springs are semi-elliptic, chrome vanadium steel, heat treated and oil



Views of the New Ruggles Model 70 Coach Chassis

The frame, which is 9 ins. deep, has a kick-up at the rear which is a continuous piece. The chassis is powered with a Wisconsin,  $4\frac{1}{2} \times 5$ , 105 b. h. p. engine. The rear axle is of double reduction, full floating type, and has a spring pad allowance of 13,000 lbs. to accommodate the largest single or double decked bodies.



tempered. Front 3 in. x 44 in. Rear 4 in. x 60 in. All springs are bronze bushed mounted on 1 1/4 in. pins and bolts. The front springs are equipped with Gruss transport type air springs.

Driving is accomplished through drop-forged I-beam, heavy duty radius rods with drop-forged yoke.

The exhaust is carried from engine through 3 in. seamless steel tubing through a two-way Petry body heating valve to the rear of the chassis. Special vacuum type, non-explosive muffler is mounted on the outside of the frame, permitting quick disposal of all gases.

The wheel equipment includes seven Budd heavy duty 10 hole disk steel wheels, 20 in. diameter. Tires, front 34 x

7, single pneumatic; rear 24 x 7, dual pneumatic.

Front tread 73 1/2 in. Rear 75 3/4 in. between dual tires. Tread of outside rear dual tires 85 in. The chassis weight is 6700 pounds.

The standard equipment includes special nickel plated coach type head lamps with tilting ray feature permitting full bright lights for either city or country driving. Bosch horn, motometer, aluminum bar radiator cap, nickel plated triple spring bar front bumper, indirect lighted instrument panel with speedometer, oil gauge, clock, ammeter, King-Seeley gasoline gauge together with ignition and lighting switches combined in one panel under glass. Complete tool kit, including high speed coach jack.



One of Grammm-Kincaid's latest bus models, the inter-city type

## New Grammm & Kincaid Bus Chassis

**F**OLLOWING the announcement of new truck models which were described in the December issue of Commercial Car Journal, Grammm & Kincaid Motors, Incorporated, Lima, Ohio, now announces two bus models built along standardized lines. Attention is called to the bridge type frame which, although common practice on large buses, is claimed to be an innovation in smaller capacity jobs.

The new models are a twenty-passenger "Intercity Coach" chassis, and a twenty-one-passenger "Pay-as-you-enter" type chassis.

The unit power plant consists of a Continental 3 3/4 x 5 in. engine, model 6-B, a multiple dry disc clutch and a 3 speeds forward transmission. Fuel is carried in a 25 gallon vacuum tank equipped with a strainer and shut off valve. A hot spot manifold is provided and the carburetor is of the compound nozzle type. A pre-heating air tube and air cleaner are used. The electrical system includes an electric starter and controlled type generator.

The cast shell radiator is supported on special rubber shoes with recoil spring checks. The core is of copper and brass.

Power is transmitted to the banjo type, semi-floating, level gear (helical type) rear axle through a tubular constructed propeller shaft, equipped with oil tight universal joints. A Ross cam and lever steering gear is used.

The frame is of pressed steel channel, 8 1/2 x 3 x 3/16 in., bridge type construction, 41 in. wide at the rear. Triple compensating type semi-elliptic springs with cupped centers are used, giving a positive Hotchkiss drive. The driving eyes are double-wrapped. These springs measure front, 46 x 3 in.; rear, 60 x 3 in.

The service brakes which are internal expanding, foot pedal controlled, actuate on 4 1/2 x 16 in. drums on the rear wheels and 2 1/4 x 16 in. drums on the front wheels. The emergency brake, which is mounted in back of the transmission, consists of a 9 x 4 in. drum. It is hand lever operated and is of the external contracting type.

Metal wheels with 32 x 6 in. truck type cords are used. Large single, or dual tires are optional and are provided at extra cost. The Alemite high pressure grease system with gun is used for lubricating chassis.

Instruments include speedometer, oil pressure indicator, ammeter, ignition lock, lighting switch and carburetor choke controls. Standard equipment includes sets of tools, jack, hand tire pump, extra rim, Alemite gun and oil can in holder on dash under hood.

The body allowance is 3,000 lbs. Chassis weight, 3,800 lbs. and road speed up to 60 m.p.h. The height of the frame above ground at front door is 20 in., at rear 21 in. The smallest amount of clearance under the chassis is 9 in. except where the springs are under-slung which does not make so much difference on account of their proximity to the wheels.

### Taxicabs Featured at Chicago Show

**T**HE latest attempt of the Bauer Cab Co. to solve the problems of providing maximum riding comfort, seating capacity, luggage space, safety and low operating cost, formed perhaps the most interesting exhibit of the taxicab section at the recent Chicago Automobile Show.

This cab now has three trimmed drop seats in place of the former two, and the interior is more comfortably arranged. In addition, the driver's compartment is entirely enclosed and a somewhat larger space has been preserved for baggage. Access to the interior is made easier by the cutting away of the roof at the side of the driving seat.

No price has as yet been fixed for this model, although it is expected to sell for around \$2450 in Chicago, and it is anticipated it will not be in production before June of 1926.

An attractive proposition from the owner-driver's standpoint was the new Hudson Super Six cab, which was primarily sold to Checker Cab drivers. The body on this is the standard Berline limousine, trimmed with Chase Velmo cloth and is therefore a very luxurious vehicle for hire trade. Naturally there is very little provision for baggage accommodation. This cab, painted to order and complete with cowl light, illuminated sign, dome light and curtains, but no spare tire, sells for \$1875.

Dodge Bros. staged a smart-looking cab with a Shamrock four-door Berline body by the Millsbaugh and Irish Corp. This body is designed to seat three on the rear cushion, in addition to two more on the drop seats. The model shown was trimmed in the standard blue Spanish leather. A notable feature was the landau top which is a great convenience for passengers in warm weather.

Similar chassis were featured by the Yellow Cab Co. These three were all of the new Milemaster totally enclosed type. Adjacent to these was the Hertz exhibit of the tourer and sedan which have become well known through the driverless hire system.

Willys-Knight showed two cabs of standard design and the Luxor Co. their de luxe vehicle, while Reo staged both a chassis and a complete cab. There have, however, been no recent changes in design or price of any of these.

# New White Heavy-Duty Dump Truck Has Many Refinements

**G**REATER speed and safety in dumping sticky loads, a revised oiling system, an auxiliary 5-speed transmission, a new power dumping mechanism and body refinements are some of the features that characterize the new model 52-D heavy duty dump model announced by The White Company, Cleveland. The new model is built along the general lines of the Model 45-D but with many refinements. The purpose of the new model is to meet the changing conditions in the industry in the highly developed demands of dump truck transportation.

Minor changes are along the line of refinements in the power and load carrying units. A low overall height; a 50° dumping angle for the body; a high spill point well back of the rear wheels, together with engine and chassis improvements.

All power driving units, such as engine, transmission, rear axle and dumping mechanism, are encased and run in oil. This applies to the complete power line from the engine to the rear wheels, as well as the complete power line from the engine to the dump body.

## New Gear Type Dumping Mechanism

A gear-type hoist has been adopted as standard equipment for this new model. This is of the under-body horizontal type driven by a shaft from the power tower. It is made up of a main worm shaft and worm gear operating through a double train of heavy spur gears giving a total reduction of 350 to 1. This leverage is more than sufficient to lift the heaviest load for which the truck is designed. The shaft which carries the last set of gears projects beyond the sides of the gear case and actuates lifting arms which raise the body.

A positive automatic cut-off prevents overrunning when the body is being

raised or lowered. A one-way drive makes it impossible to apply the power in the wrong direction.

A double purpose power transmission has been developed which combines a "power driving tower" for operating the dumping mechanism with a low gear "power transmission" (or auxiliary transmission) which can be used to increase the driving torque when the power required for propelling the truck is beyond the capacity of the low speed gear of the standard transmission.

In effect this auxiliary transmission provides for a five-speed gear shift including a super-low gear for operating in soft ground and in excavations where heavy loads and steep grades are combined with the mud and muck roads usually found in this class of service. The complete assembly is in one unit placed under the driver's seat. Its location in the power line is between the rear axle and the regular truck transmission.

## Revised Oiling System

The pump capacity has been increased 25% which, combined with an extra large reservoir in the crankcase, insures a copious supply of oil to all parts of the engine. After leaving the pump the oil is forced through a main delivery tube which has outlets to the main crankshaft bearings, the camshaft bearings, crank pin bearings and into the timing gear

**The White Model 53-D heavy-duty job showing hoist mechanism, new radiator and bumper. Note the high dumping angle**

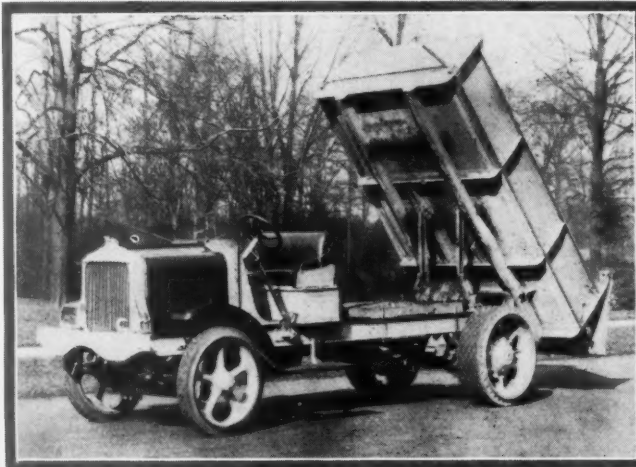
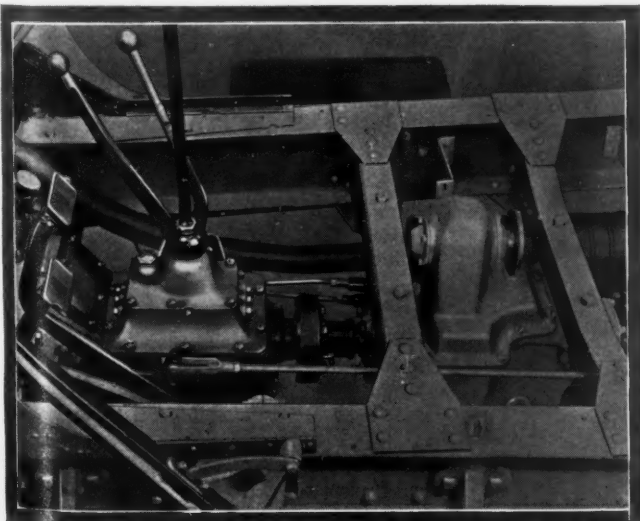
housing. An adjustable orifice and an automatic blow-off valve controls the pressure.

A novel system is used for cleaning the oil after it has returned to the pump at the rear end of the crankcase. An inverted metal box, or reservoir, is placed within the pump which allows the returning oil to flow around it into a sediment trap at the bottom of the crankcase. A fine mesh wire screen is placed between this trap and the bottom of the oil reservoir. In this way this screened bottom reservoir is continually immersed in the oil. The only oil which can enter it must first pass into the sediment trap then up and through the screen before it can reach the intake to the pump, located in the oil reservoir above the screen. In this way the dirt particles are removed from the oil. Their natural tendency to drop to the bottom of the trap makes it easy to remove them through a drain plug provided for that purpose.

## Dumping Body Refinements

The standard dumping body is of five yards capacity. It measures 11 in. long, 6 in. wide and 25 in. high. It is constructed of 3/16 in. steel plate, the bottom and sides being formed of two pressed steel plates with a watertight center joint, running longitudinally, and fully supported by a heavy splice bar throughout its entire length.

The body, which has been specially designed for use with Model 52-D, is 4 in. wider at the rear than at the front. This insures easy dumping. The sides are low enough for hand-loading, while the smooth rounded corners at the bottom prevent material from sticking and clogging when discharged. Angle plates and



Increased pulling power is provided without sacrificing regular speeds by an auxiliary transmission containing an extra super-low gear

T-section strengthening members are provided for reinforcing the sides and the ends are built up 6 in. higher than the sides to allow for extension side-boards if greater capacity is desired. A double-acting tail gate is operated from the driver's seat and means can be provided to restrict the opening when load is to be spread. The body is fitted on the frame so that the spill point is as high above the ground as possible and well back of the rear wheels. This makes it possible to dump the load cleanly over



a dump or "fill" without the danger of miring the rear wheels in the loose ground at the edge.

#### The Powerplant

The powerplant in the Model 52-D is the White GRB engine, which is standard for all heavy duty models from 2½ ton to 5 ton capacity. The cylinder blocks, valves and valve ports have been modified to improve the cooling of valves and stems and increase the all-around efficiency of the engine.

The manifold is fitted with a hot air stove consisting of a pressed-steel plate chamber, one side of which is formed by the exhaust manifold. This stove is connected to the carburetor intake by a cast elbow in which a control valve is located.

There has been no change in the rear axle which is of double reduction type. The front axle also remains the same with the exception that taper roller bearings are used.

The engine has been moved from the former horizontal position and is tilted down toward the rear. This makes possible straight line drive under normal load.

Solid tires 12 in. wide in the rear and 6 in. wide in the front together with refinements in the radiator hood and steering mechanism complete the chassis and running gear design. The wheelbase is 156 inches.

#### N. A. C. C. Issues New Automobile Handbook

What this country now has to offer for the world's motor transportation is shown in the twenty-third annual Handbook of Automobiles, just issued by the National Automobile Chamber of Commerce.

Illustrated specifications are given of 178 motor vehicles, and 770 models are

listed. The specifications are grouped in four sections, including 100 private passenger cars, 5 taxicabs, 15 motor buses and 58 commercial cars and motor trucks, representative of this year's product of the manufacturers who are members of the Chamber. All of the vehicles shown are gasoline-driven, except 3 electric commercial vehicles.

#### Sandow Builds Factory Branch

The Sandow Motor Truck Co. announces the opening of a factory branch at 434-440 East 108th St., New York City, where it will continue to distribute Sandow trucks at wholesale and retail. The branch will be in charge of R. C. Kaufmann, formerly connected with the Armleder, Selden and Larrabee-Deyo truck companies, and will take in the territory of New Jersey, Long Island, Connecticut, New York and the northern portion of Pennsylvania.

## Stewart Introduces the "Buddy" Three-Quarter Ton Speed Truck

THE "Buddy" Stewart, a three-quarter ton speed truck was introduced during the National shows by the Stewart Motor Corp., Buffalo, N. Y. The chassis lists at \$895.

Sturdiness of construction is emphasized. It has a five-inch frame and a ten-inch single plate clutch, bevel axle and Timken bearings in each axle. The "Buddy" Stewart is powered with six-cylinder Continental engine, 2¼ by 4¼ in. in unit with 3-speed transmission.

The entire electrical system, ignition and starting is by Remy.

Specifications include: Zenith carburetor, cellular type radiator with pressed steel shell; 5 in. frame at point of greatest depth; Gemmer steering gear; front and rear axles Timken roller bearing equipped; wood wheels, with demountable rims equipped with 32 x 4 in. cord tires; wheelbase 118 in., tread 56 in. Chassis weight 2250 lbs.

The front springs are 38½ in. long and 2¼ in. wide, equipped with bronze bushings and ¾ in. diameter spring pins. The springs at the rear are 50 in. long and 2½ in. wide with spring pins in bronze bushings 1 in. in diameter.

The service brakes are of the external contracting type, 14 in. in diameter and 2 in. in width, operating on pressed steel drums on rear wheels. The hand brake is external contracting, mounted on the transmission, 8 in. in diameter and 2 in. in width. The driveshaft is 1¼ in. in diameter equipped with metal covered, dust-proof and oil-tight joints.

The equipment includes electric lights, electric starter, electric horn, tool kit, grease gun and jack. The instrument board carries ammeter, oil gauge, start-



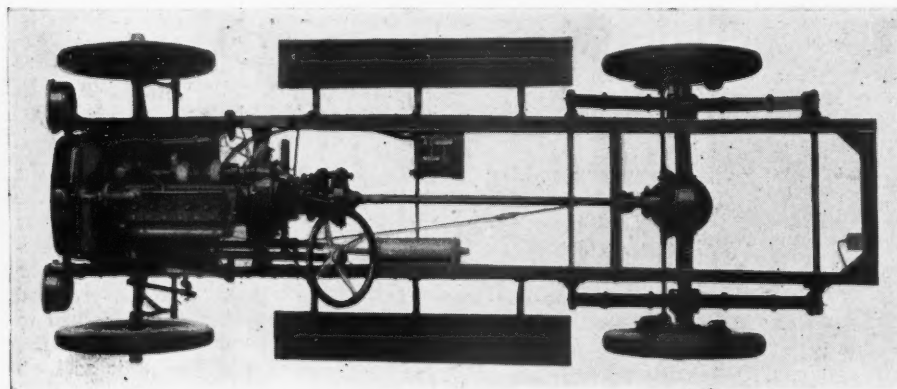
ing choke, lighting and ignition switches. The speedometer is included as standard equipment.

This job will throttle down to four miles per hour and will run up to a maximum speed of forty miles. Tests show 18 to 22 miles per gallon. It has been designed with the idea of producing a light truck with a road appearance as pleasing as possible. The chassis will accommodate 7-foot bodies back of the driver's seat.

Two types of Stewart-built bodies are featured with "Buddy" Stewart. Both have closed cabs built integral with the body, 44¼ in. wide, with seats 20 in. deep and doors 24 in. wide. The windshield opens outward. The windows raise or lower by standard window regulators and there is a sun shield over the glass front.

The covered express body with the closed cab lists at \$245. This body is 45 in. wide and 7 ft. long. Height of floor to ceiling is 52½ in. The flare boards are 6½ in. wide and the tail gate is 13 in. high.

The panel body with closed front lists with cab at \$280. This is also 45 in. wide and 7 ft. long and has two doors full-length at the rear. The manufacturer states that these bodies are designed and constructed so that they fill 90 per cent of all customer requirements.



This view clearly shows the clean cut lines of the New "Buddy" Model



## Graham Brothers Announce New Single and a Gas-Electric Double-Decker

**T**WO new buses, both of which carry the Graham Brothers nameplate, have just been announced. The first is a 60-passenger, double-deck, fully enclosed metropolitan type bus powered by the gas-electric system. Due to the advantage which is taken of the facilities offered by the Westinghouse air braking system, this bus can be operated as either a one-man or two-man type depending upon traffic conditions. An unusual automatic inter connected control of the rear door by means of the braking system is a feature which makes the choice of operating method possible.

The second new bus is single-deck, street-car type, seating 29 passengers, with single front door and emergency rear door. The customary four-speed mechanical transmission is used. Both jobs are mounted on pneumatic tires all around with duals at the rear. All wheels are Budd discs. Continental six-cylinder engines are used in both models and Timken worm drive rear axles. In the gas-electric job, the larger bus has a double axle with each rear wheel driven by a separate

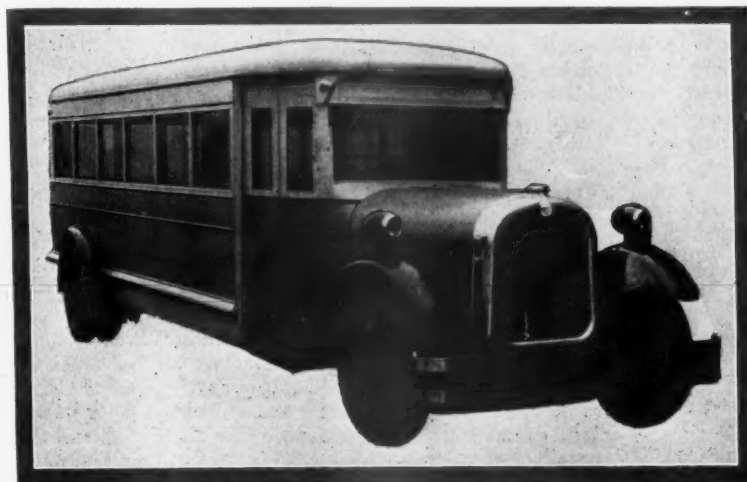
motor through two drive shafts.

Body design of the larger bus is noteworthy. On the lower deck the driver is seated in the main compartment and the stairs to the upper deck are located along the rear wall. An aisle extends through the full length at the center and divides several sets of two-passenger lateral seats. Longitudinal seats for three passengers are placed over the wheel houses and another is located opposite the driver's seat immediately back of the front door. The ceiling is monitor

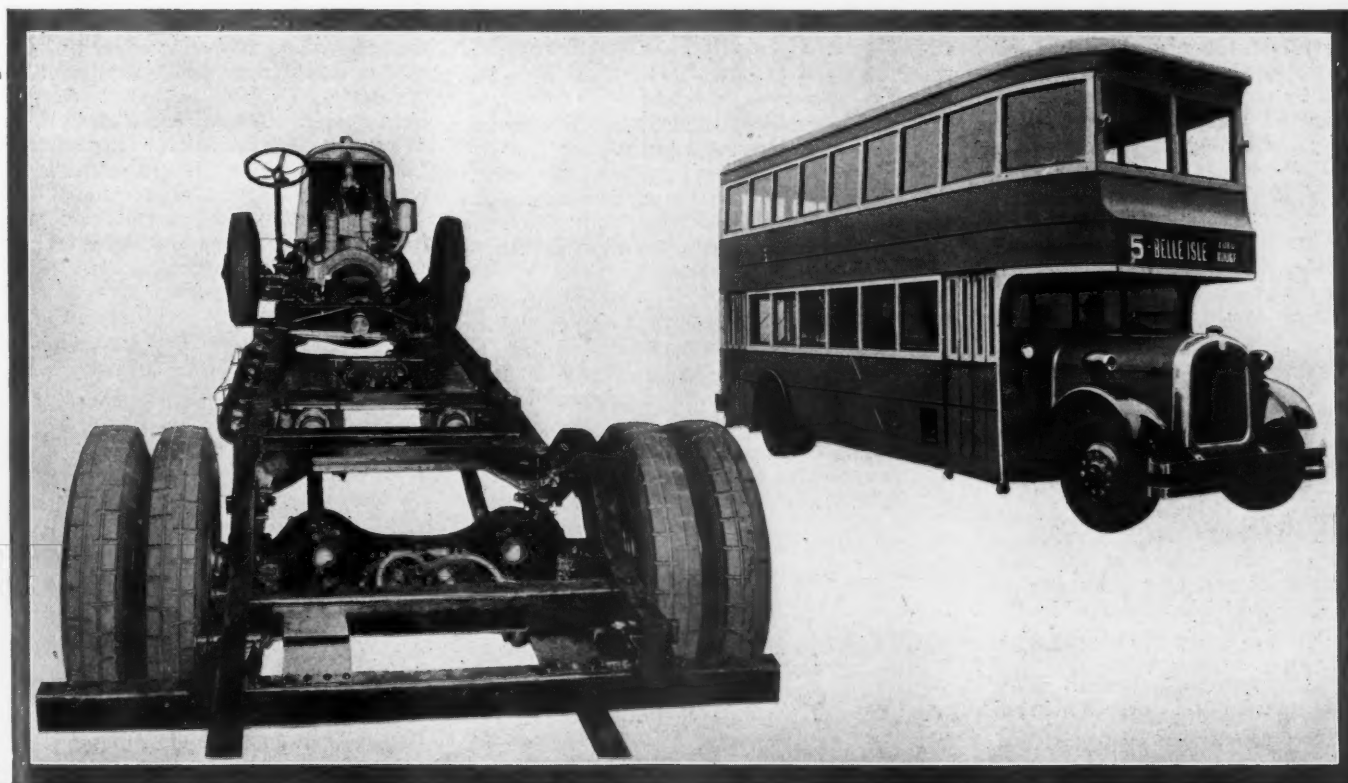
type with 74 in. head room over the aisle and considerably less over the seats.

This arrangement allows the seats on the upper deck to be arranged back to back along the center line of the body. Each seat of this row on the upper deck has an individual formed back. Three seats at the front of the rear deck face forward and three auxiliary seats in excess of the rated capacity are placed in the corners, the fourth corner being taken up by the upper end of the stairway. Rated capacity calls for 28 passengers on the lower deck and 32 passengers above.

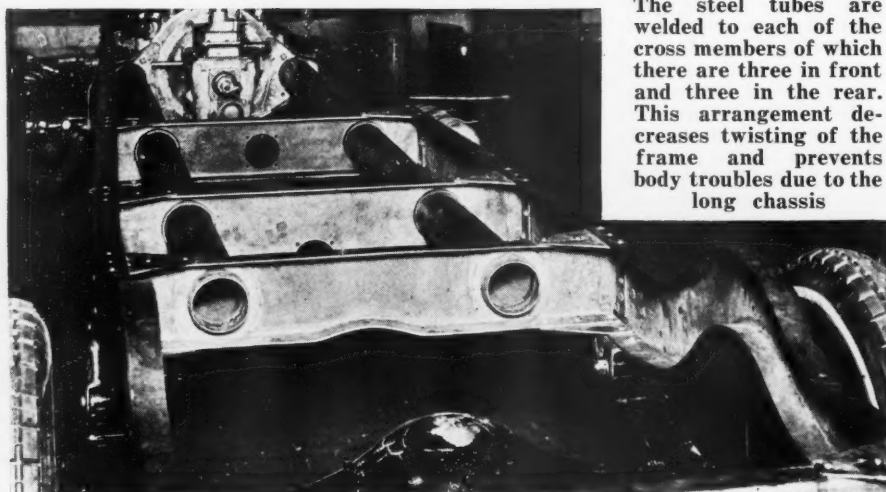
Steel sash windows which can be lowered flush with the sills completely enclose both decks. Ventilator channels which are placed between the backs of the upper seats convey heat from the lower to the upper deck, the former being exhaust heated. Circulation of fresh air is insured by an indirect ventilator which is installed in the front wall of the monitor just above the windshield and ventilators placed in the roof of the upper compartment. Another unusual feature is the lighting of



The Graham Single-Deck 29-passenger street-car type



These views show the chassis and the body design of Graham Brothers new gas-electric, double-deck bus



The steel tubes are welded to each of the cross members of which there are three in front and three in the rear. This arrangement decreases twisting of the frame and prevents body troubles due to the long chassis

the interior. Lamps are placed back of sanded glass diffusers in the sides of the monitor and in conjunction with a white enamelled ceiling flood the lower deck with indirect illumination. The upper deck has similar lamps set in the roof.

#### Doors Control Brakes

Both doors are at the right side and their bottoms are just above the height of the ordinary curb. Each of these doors are opened and closed by air pressure drawn from the storage tanks of the air brake system and the valves are interconnected with the service or air brakes so that the bus can not be moved until the doors are closed. One exception is made to this arrangement. When two-man operation with a conductor at the rear is necessary, the inspector or starter unlocks the control of the rear door with his key to permit manual operation.

When one man is in charge of the bus control of the rear door is made automatic by a section of hinged platform just inside of the door. As the bus draws near the stop, the weight of the passenger standing at the door causes the platform to depress and control the door opening. The door remains open for six seconds after the passenger alights and the brakes are locked for this period. If another descending passenger approaches the door as it starts to close, automatic opening occurs again and the brakes are reset. Front door control is by a separate valve.

A heavy well braced pressed steel frame with a kick-up at each axle is the foundation of the entire bus. While the left side member extends clear to the rear of the bus, the right is cut off just back of the rear axle and supplanted by a sub-frame which provides for the low platform height at the rear door. Both front and rear axles are made by Timken and brakes operated by the Westinghouse system are mounted at all four wheels.

The powerplant consists of a Continental model 14-U,  $4\frac{1}{2} \times 5\frac{1}{4}$  in., directly connected to the General Electric electric generator.

While the front axle is the conventional wide tread Timken bus axle, the

rear axle is the special type incorporating a separate under-mounted worm drive for each wheel. Tires are  $36 \times 8$  all around. Auxiliary springs are fitted to the rear axle.

The wheelbase of the double deck bus is 234 in. with bumpers fitted at both front and rear. Steering is by a Ross cam and lever gear. The gas tank of 41 gal. capacity is placed just back of the front door and the filler and gage are located in a set-in opening in the side of the body. At the rear the license bracket is accommodated in a similar opening, so that none of these parts is subject to collision. Road illumination is secured by Edmunds and Jones headlamps which are mounted atop the full crowned steel front fenders.

While the wheelbase of the lighter

29-passenger single-deck bus does not vary greatly from that of the larger job, the tires on this model are  $36 \times 6$  all around with duals at the rear. Westinghouse air braking is utilized on this model as well, but only at the rear wheels. This body is fitted with the dome roof which is generally characteristic of single deck bodies and the seating arrangement is approximately conventional with the aisle at the center, several rows of cross seats, a full seat at the rear end and longitudinal seats over the wheel houses. The middle portion of the seat across the rear of the body is hinged and mounted on the emergency door. The front door is controlled by a hand lever adjacent to the steering wheel.

One of the unusual features of the smaller chassis is the frame construction. The side members are the usual heavy deep channels with spring horns at the front and a kick-up over the rear axle. These are tied together by six channel cross members, all gusseted. The rear engine support takes the form of a steel plate extending inward from each side of the frame with a formed surface which follows the joint between the engine and gear box at the bell housing. Large diameter steel tubes which are welded to each of these plates extend backward through the next three cross members and are welded again to the last of these. This arrangement is thought to decrease the twisting action of the frame and thus eliminate many of the body troubles which are related to the long chassis.

The powerplant in the single deck bus is a Continental six-cylinder model 7-T engine of  $4\frac{1}{2}$  in. bore and  $5\frac{1}{4}$  in. stroke.

## The Yellow Knight "Money Maker"

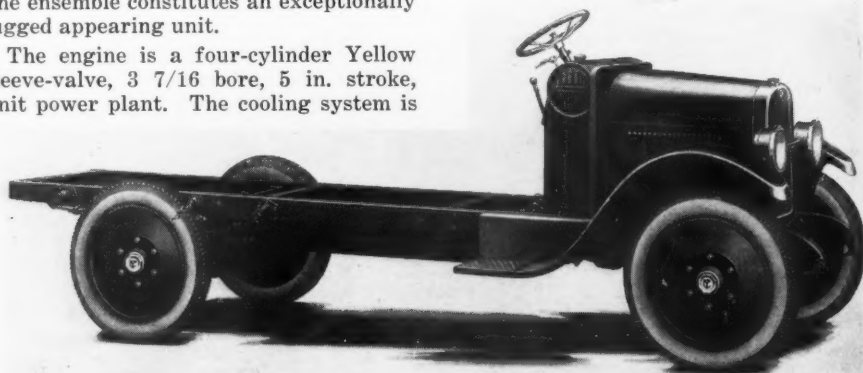
THIS new vehicle is manufactured by the Yellow Truck and Coach Mfg. Co., and sold through GMC branches.

The "Money Maker" is the lowest priced vehicle carrying the "Yellow" name and retains many of the structural features of the Yellow cab, while the power plant is identically the same as incorporated in the new limousine, type O-5, Yellow taxicab.

Another characteristic Hertz engineering practice is found in the frame, which is of unusually heavy construction, as are front axle, rear axle and fenders. The ensemble constitutes an exceptionally rugged appearing unit.

The engine is a four-cylinder Yellow sleeve-valve,  $3\frac{7}{16}$  bore, 5 in. stroke, unit power plant. The cooling system is

thermo-syphon, 20 quarts capacity. Gas tank is mounted on dash, gravity feed to carburetor, 11 gals. capacity. Borg & Beck clutch. Gemmer worm and sector steering gear; three speed transmission. The rear axle is a Timken spiral bevel, ratio  $6\frac{1}{7}$  to 1. Springs are semi-elliptic  $38 \times 2\frac{1}{2}$  front and  $50 \times 2\frac{1}{2}$  rear. The frame is  $5\frac{1}{2}$  in. deep,  $3/16$  in. thick and is fitted with four cross members. Steel disk wheels with spare. Tire  $32 \times 4\frac{1}{2}$  cords. Wheelbase 124 in. Complete electric equipment, speedometer and tools.



Chassis of the Yellow Knight "Money Maker"





Front view showing new fenders and bumper arrangement

**S**TRIKING new frontal design, several important mechanical improvements, and Fisher built steel cabs embodying latest passenger car features, characterize the new heavy-duty line of trucks now being manufactured by the General Motors Truck Co., the truck division of the General Motors Corp., and the Yellow Cab Mfg. Co. of Chicago, which were merged last August.

Previously known by the K-72 and K-102 model designation, the 3½ and 5 ton chassis in their new form are marketed under the title of "Big Brute" typifying the masterful appearance of the new models. The previous 2½ ton chassis with certain modifications completes the heavy-duty line. Both the one ton and the 1½ ton models introduced last spring are continued without mechanical improvements or variance in price, while on the heavy-duty line, however, prices f. o. b., Pontiac, have been slightly increased. In a few weeks a group of three specially developed truck-tractors of 5, 10 and 15 ton capacity respectively will complete the GMC line.

In presenting the new "Big Brute" line, the manufacturers lay claim to offering the most completely equipped trucks in their field, specially with regard to the maintenance viewpoint as well as providing maximum comfort for the driver. In co-operation with Fisher Body Corp. engineers, a new indestructible all-steel cab is furnished as standard equipment at no extra cost. Modern automobile body design has been taken as a pattern for the development of the new cab.

#### Fisher All-Steel Cab

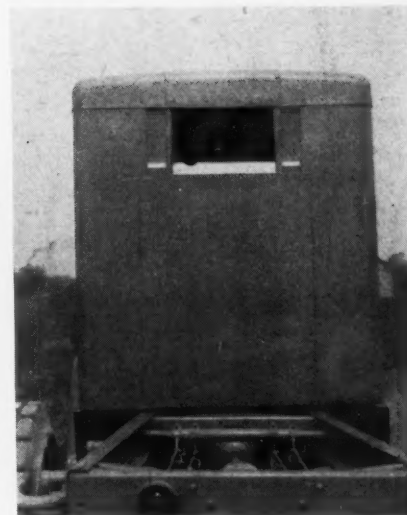
A special type of Fisher vision-ventilating one-piece windshield is employed

## GMC Introduces the "Big Brute"

which may be opened at the bottom for complete ventilation, while in the lowered position the two-inch aperture at the top allows maximum vision in the severest weather. In addition, an automatic windshield cleaner is installed. By continuing the roof over the windshield a sun visor is provided, the lines of which blend well with the design of the cab.

On either side of the windshield posts, permanent glass windows are fitted, while sliding curtains completely enclose the cab when the doors are in position. The doors extending from the seat level to the floor are of the disappearing type which when folded drop into metal pockets below the floor level. In the "down" position, the steel doors are protected from dirt and damage and can be lifted into position easily and in a few seconds. The sliding curtains provided with large windows of Pyralin are carried in metal tracks in the roof of the cab well out of the way when not in use. To allow the driver accessibility to the levers when vertical type hoist bodies are employed, the rear window is of the double sliding type.

Special attention has been paid to the interior fittings and appointments so that the driver will enjoy maximum comfort when engaged in long haulages. The seat containing Marshal springs and the backs which are of form design are upholstered in a Spanish leather effect Fabrikoid. In addition to being adjustable in the vertical plane by 2 in., the seat is formed in two sections to enable quick access to the battery and fuel tank, both of which are located under the seat compartment. Cowl and



Note the sliding window through which hoist levers can be operated

dash are integral with all instruments mounted in a convenient form on the panel.

To guard against damage from road shocks, the steel cab besides having extra heavy reinforcements at all points of stress, is mounted on the frame in a three point type of suspension with contact being formed through shock absorbing rubber disks held in metal containers. The cab is suspended at two points at the forward end with the rear of the cab mounted at a single point. This system of body mounting is said to virtually eliminate rattles and enables the cab to withstand the hardest usage.

#### Unusual Front End Design

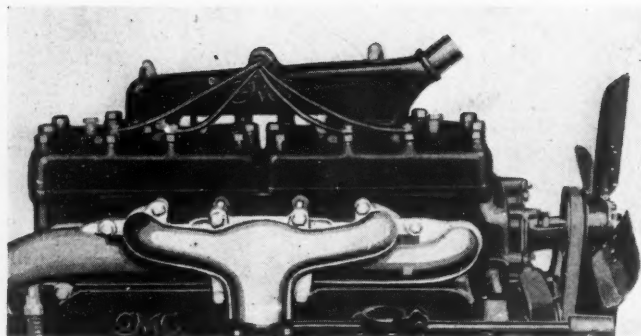
The front fenders are of such design as to withstand damage, loosening and noise through road vibration. In accomplishing this, the contour of the heavy gage baked enamel fenders is necessarily somewhat unusual. They are further protected by a channel bumper attached to an extension of the frame. Upon this extension are also mounted the radiator guard and tow hooks so that in the event of damage to any or all of these three units, the extension can be replaced without disturbing the frame proper. A metal apron below the cab ties-up with the fenders and running board completing the clean appearance of the forward part of the chassis.

Radiators on both 3½ and 5 ton models have been materially changed to present a new appearance. The shell completely enclosing the core is now made of cast aluminum finished in black enamel but with the encircling bands and GMC trademark contrasting in polished aluminum. In addition to increasing



Showing sliding and disappearing doors and windows in position. Note the sun visor effect





Showing the new double cylinder heads

the capacity of the core and improvements in the air flow, the radiator is now capacity of the core and improvements insure longer life. Headlights of the two bulb type are attached to the radiator shell and are finished in aluminum and black to match the general scheme.

#### Engine Improvements

More power and smoother operation has been secured on the  $3\frac{1}{2}$  and 5 ton chassis engine by increasing the stroke length  $\frac{1}{2}$  in. so that the cylinder dimensions are now  $4\frac{1}{2}$  in. bore by  $6\frac{1}{2}$  in. stroke. While the N. A. C. C. rating is unchanged, the maximum power has been increased to 53 b. h. p. and the piston displacement is greater by 31 cu. in.

Modifications have been made throughout the engines to give longer life and better servicing features, chief among these are: crankshafts are heavier and more rigid with special lugs forged on the webs to obtain proper balancing without removing metal from the webs themselves. Copper tubes were formerly employed to carry oil to the piston pins, on the redesigned connecting rods which are lighter and stronger than before, an oil line is drilled through the main web direct from the lower bearing to the upper end. Piston pins are held to closer limits and given a lapped finish while among several improvements on the pistons is the employing of dished heads.

To reduce possibility of leakage or warping and to provide greater convenience in maintenance, the previous single casting cylinder head is now made in two separate castings. In line with these changes, the shape of the combustion chamber has been changed and the water circulation improved. Cylinder sleeves of improved materials are given a Brinnell hardness test and now finished with two distant honing operations.

#### Valves of Different Metal

Two different metal alloys are now used for the valves, whereas, the intake and exhaust were formerly of the same material. High chrome silicon steel is used for the exhaust to withstand the heat while the intake valves are formed of chrome nickel steel. A new process introduced in the manufacture of the valves to enable them to offer greater

resistance to heat is by "coining" the valve heads which leaves the "skin" of the metal in place. Each valve is marked to identify the intake from the exhaust.

Improved wearing qualities and smoother operation of the timing gears is accomplished by burnishing the teeth through rolling the gear with a hardened master gear. Carburetor settings,

water pump and manifold have also undergone changes to make for more effective operation. While the oiling system remains the same as previously, at the time of changing the crankshaft, the connecting rod pins of the shaft are now drilled with large horizontal holes which automatically carry a reservoir of oil. In addition two holes in the crank pins assure the proper quality of lubricant at high and low speeds. The engine is supported on rubber blocks while the air cleaner is mounted inside the cab compartment where a cleaner supply of air is obtainable. No mechanical changes have been made on the  $2\frac{1}{2}$  ton engine.

Down through the remainder of the chassis, changes have been made to give smoother operation, easier maintenance and greater durability. On the  $3\frac{1}{2}$  and 5 ton editions, the clutch pilot bearing has been increased in size with the clutch pressure plates redesigned on all three models to give a greater off-set while the disks have woven fabric facings on both sides. Transmissions on the heavy-duty line are larger and stronger with increased factors of safety. All main shafts and counter shafts have been increased in diameter with the number of splines on the former increased from six to ten. Gears are larger in diameter and given a improved method of heat treatment. The teeth are also given the burnishing treatment while the length of the bear-

ing surface on all sliding gears has been increased.

Mountings for carrying the bearings are now in individual containers instead of being located directly in the case as formerly. In addition, the inner races of the bearings are locked on the shaft with nuts thus eliminating the transmission of any thrust through the case. All bearings have been increased in size and capacity. Side openings are provided for power take-off connections while the two larger models have arrangements for over-head take-offs of various types.

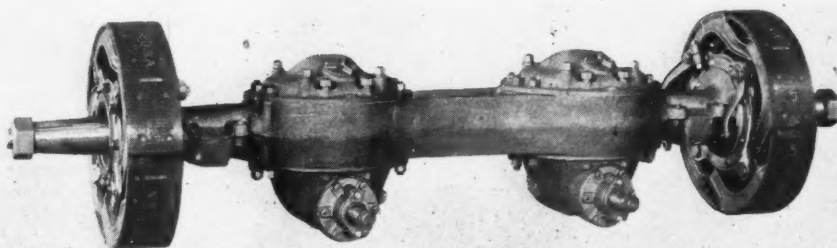
Virtually no improvements have been made in the rear axles with the exception of a change in the gear ratio on the  $2\frac{1}{2}$  ton chassis which is increased from  $7\frac{1}{4}$  to  $8\frac{1}{2}$ . A new floating cam assembly employed on the rear axles has considerably increased the braking power and allows the brake shoes to fit snugly all round the drum under every condition. Slight modifications have been made on the front axles while the tread at the front on the  $3\frac{1}{2}$  and 5 ton chassis is increased from 67 in. to 71 $\frac{1}{2}$  in. A ball and socket type tie rod is used instead of the pin and fork type which gives a better assembly and permits of adjustment to take up wear.

Easier steering has been accomplished by changing the pitch of the worm, the lowering of the ratio and an improved angle of the steering column. A new type of steering wheel with corrugated hand grips is adopted on all models. The gear itself on the  $2\frac{1}{2}$  ton model has undergone more extensive changes.

Tire sizes have been increased on all three models and are now of the following dimensions:

	Front	Rear
$2\frac{1}{2}$ Ton	36 by 4 in.	36 by 10 in.
$3\frac{1}{2}$ Ton	36 by 5 in.	40 by 12 in.
5 Ton	36 by 6 in.	40 by 14 in.

Pneumatics and cushion tires will be furnished at slight extra cost as well as an electric starter for the engine. In spite of steel cabs, larger tires, extra equipment and heavier units there is not an appreciable increase in the total weights of the new chassis as compared with the previous line.



Timken Dual Worm Drive Axle—Type 6530—for Dual Motor Drive Gas-Electric Coaches

This shows the type of axle supplied by the Timken-Detroit Axle Co., for the 333 gas-electric motor coaches recently purchased by the Public Service Corp., Newark, N. J. This axle is constructed for underslung springs and Hotchkiss drive. The housing is a one-piece drop forging and represents what is known as a double bowl banjo type. The underslung spring pads and the flanges for mounting the brake mechanism are forged integral presenting a most difficult forging problem. The worms are underslung as will be noted in the illustration. The carrier assembly or driving unit is easily removable as a unit, and consists of the Timken F. J. type of worm drive assembled in a carrier which is bolted to the underside of the housing. Each of these carriers is assembled  $13\frac{1}{4}$  in. from the center line of the axle. A 11 to 1 gear ratio is used.

# Commercial Car Specifications—Corrected Monthly

The Specifications, Chassis Prices, Etc., Are Corrected Each Month From Data Supplied Direct by the Makers. Gasoline Tractor-Trucks Will be Found at the End of Gasoline Commercial Cars

Those Chassis Which Are Sold and Recommended for Passenger Transportation Are Designated in the Following Table by Reference Sign (\$) in Front of the Name

For Specially Designed Motor Bus Chassis See Pages 36 and 37

(Where prices are not given it is because we have been unable to get them from authoritative sources)

Key of abbreviations, page 35

Trade Name and Model	General			Engine						Electrical System		Clutch	Gearset		Rear Axle		Gear Ratios		Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.) (stripped)		
	Standard Wheelbase (Inches)	Tire Size \$		Bore and Stroke (Inches)	N.A.C.C. Rated H.P.	Valve Arrangement	Oiling System	Governor (Make)	Radiator (Make)	Fuel System			Generator and Starter (Make)	Type	Make and Model	No. of Forward Speeds	Universals (Make)	Final Drive							Total Reduction in High	Total Reduction in Low
		Front (Inches)	Rear (Inches)							Carburetor (Make)	Fuel Feed															
												Chassis Price														
<b>1000 Pounds</b>																										
Chevrolet Sup. Com. Ch.	395	103	30x3 1/2	30x3 1/2	30x3 1/2	30x3 1/2	3 1/2 x 4	21.7	H	PS	Non	Har	Til	V	Rem	Rem	Own Sup	3	Own	S	3.82	12.7	A	Own Sup	1520	
Overland 91	395	100	30x3 1/2	30x3 1/2	30x3 1/2	30x3 1/2	3 1/2 x 4	19.6	L	SP	Non	Own	Til	G	A-L	A-L	Own 91	3	Own	S	4.50	17.6	A	Own SE	1472	
Star Four	425	102	30x3 1/2	30x3 1/2	30x3 1/2	30x3 1/2	3 1/2 x 4	18.2	L	P	Non	Fed	Til	G	A-L	A-L	Own	3	Spi	S	4.87	16.16	A	Own	1465	
<b>1500 Pounds</b>																										
Dodge Brothers	655	116	32x4	32x4	32x4	32x4	3 1/2 x 4 1/2	24.1	L	SP	Non	McC	Ste	V	N-E	N-E	Own	3	Own	S	4.54	18.9	A	Own	2202	
Larabee A1		133	29x4 1/2	29x4 1/2	29x4 1/2	29x4 1/2	3 1/2 x 4	23.4	L	PC	Non	Fed	Zen	G	Bos	Bos	B-L	B-L	3	Spi	S	5.10	17.1	A	Sal	2730
Reimer R-31	1070	125	35x5	35x5	35x5	35x5	3 1/2 x 5	22.5	L	PC	Non	Har	Zen	V	Eis	Eis	B-L	B-L	3	Har	W	6.75	22.5	A	Tim 1250	2500
Stewart Buddy	895	118	32x4	32x4	32x4	32x4	3 1/2 x 4	18.2	L	PC	Non	Own	Zen	G	Rem	Rem	Own	Own	3	Own	B	4.8	30.0	A	Own	2250
White 16	2150	133	34x5	34x5	34x5	34x5	3 1/2 x 4 1/2	22.5	L	SP	Non	Own	Zen	G			Own 15	Own	4	Spi	S	4.67	20.2	A	Own	3225
White 15-45	2050	143	34x5	34x5	34x5	34x5	3 1/2 x 5	28.9	L	PC	Non	Own	Zen	G			Own	Own	4	Spi	S	5.36	26.7	A	Own	3575
Yellow Cab Mod T3	1295	109	29x4 1/2	29x4 1/2	29x4 1/2	29x4 1/2	3 1/2 x 5	22.5	L	PS	Non	Lon	Zen	G	Bos	N-E	B-L	B-L	3	Spi	B	4.90	16.3	B	Tim 1341 Day	2600
<b>1 Ton</b>																										
Anne Flyer	130	130	30x5	30x5	30x5	30x5	4 1/2 x 4 1/2	28.9	L	FP	Non	Per	Zen	V	Bos	Bos	B-L	B-L	3	Blo	S	5.10	24.4	A	Col 5000S	3125
Atterbury 26B		132	30x5	30x5	30x5	30x5	4 1/2 x 4 1/2	23.4	H	SP	Non	Own	Str	G	Bos	Bos	Own	Own	3	Spi	R	8.30	33.2	A	Own F	3800
Autocar F	120	127	34x6	34x6	34x6	34x6	4 1/2 x 4 1/2	18.1	L	SP	Non	Own	Str	G	Bos	Bos	B-L	B-L	3	Spi	R	8.30	33.2	A	Own F	3900
Autocar G	120	123	33x5	33x5	33x5	33x5	4 x 5	25.6	L	PC	Non	Chi	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.6	23.4	A	Shu 5504	3100
Available L-1	1615	125	33x5	33x5	33x5	33x5	3 1/2 x 5	19.6	L	PC	Non	Bus	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	6.86	27.4	A	Eat 750	2880
Bethlehem KN	1850	140	34x5	34x5	34x5	34x5	4 1/2 x 5	22.5	L	PC	Non	Chi	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.5	27	A	Shu 1250	3150
Beta J-3	138	138	34x5	34x5	34x5	34x5	4 1/2 x 5	22.5	L	PC	Non	Own	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.5	27	A	Shu 1250	3150
Biederman	1700	130	34x5	34x5	34x5	34x5	4 1/2 x 5	22.5	L	PC	Non	Own	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.5	27	A	Shu 1250	3150
Casco A	550	124	30x3 1/2	30x3 1/2	30x3 1/2	30x3 1/2	4 1/2 x 5	21.7	H	PS	Non	Har	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.85	23.4	A	Own Sup	3200
Chevrolet Sup.		132	30x5	30x5	30x5	30x5	4 1/2 x 5	25.6	L	FP	Non	Chi	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.66	23.4	A	Own Sup	1985
Chicago	140	140	34x5	34x5	34x5	34x5	4 1/2 x 5	25.6	L	PC	Non	Chi	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.66	23.4	A	Own Sup	3240
Clydesdale 16	138	138	30x5	30x5	30x5	30x5	4 1/2 x 5	25.6	L	PC	Non	Rac	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	6.43	30.86	A	Tim 1250	3450
Commerce Distributor	2400	130	32x5	32x5	32x5	32x5	4 x 5	25.6	L	PC	Non	Own	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.8	23.2	A	Tim 1250	2900
Denby 41	130	130	32x5	32x5	32x5	32x5	4 x 5	25.6	L	PC	Non	Own	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.8	23.2	A	Tim 1250	3315
Diamond T75		132	32x5	32x5	32x5	32x5	4 x 5	25.6	L	PC	Non	G&O	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.12	15.6	A	Tim 1250	2925
Dorris 2	1095	124	32x4 1/2	32x4 1/2	32x4 1/2	32x4 1/2	3 1/2 x 4 1/2	22.5	L	PC	Non	Mod	Str	G	Bos	Bos	B-L	B-L	3	Spi	B	4.23	15.6	A	Tim 1250	2000
Duplex G	365	123	30x3 1/2	30x3 1/2	30x3 1/2	30x3 1/2	3 1/2 x 4	22.5	L	SP	Non	Own	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	6.11	22.3	A	Own TT	2400
Federal Knight		132	32x5	32x5	32x5	32x5	4 1/2 x 5	22.5	L	PC	Non	Own	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.50	24.7	A	Own 15	3500
Ford T	1500	132	34x5	34x5	34x5	34x5	4 1/2 x 5	21.0	L	PC	Non	Chi	Str	G	Bos	Bos	B-L	B-L	3	Spi	B	5.50	24.7	A	Own 15	3500
Garford 15		136	34x5	34x5	34x5	34x5	4 1/2 x 5	22.5	L	PC	Non	McC	Mar	G	Bos	Bos	B-L	B-L	3	Spi	B	5.50	24.7	A	Own 15	3500
Gary Express	131	131	34x5	34x5	34x5	34x5	4 1/2 x 5	20.3	L	PC	Non	McC	Mar	G	Bos	Bos	B-L	B-L	3	Spi	B	6.1	21.9	E	Tim 1250	3433
GMC K-17 20 B	975	130	32x5	32x5	32x5	32x5	3 1/2 x 4 1/2	22.5	L	PC	Non	McC	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.60	16.0	B	Tim 1546-E	3300
Graham Bros. RR	129	129	32x5	32x5	32x5	32x5	3 1/2 x 4 1/2	22.5	L	PC	Non	McC	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.10	21.3	A	Tim 1250	2630
Gramm-Kincaid 233N	133	133	30x5	30x5	30x5	30x5	3 1/2 x 4 1/2	22.5	L	PC	Non	Own	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.85	23.4	B	Sal 1453	2630
Gramm-Kincaid 263N	130	130	30x5	30x5	30x5	30x5	3 1/2 x 4 1/2	22.5	L	PC	Non	Own	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.33	21.3	B	Col 5300	2630
Grus Premier 40	1550	130	30x5	30x5	30x5	30x5	3 1/2 x 4 1/2	22.5	L	PC	Non	Own	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.33	21.3	B	Col 5300	2630
Indiana 1	129	129	30x5	30x5	30x5	30x5	3 1/2 x 4 1/2	22.5	L	PC	Non	McC	Str	G	Bos	Bos	B-L	B-L	3	Spi	B	5.33	21.3	B	Col 5300	2630
Interm. Investor S	2150	134	32x4 1/2	32x4 1/2	32x4 1/2	32x4 1/2	3 1/2 x 4 1/2	22.5	L	PC	Non	Own	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.33	21.3	B	Col 5300	2630
Kenworth 25	134	134	30x5	30x5	30x5	30x5	3 1/2 x 4 1/2	22.5	L	PC	Non	Own	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.33	21.3	B	Col 5300	2630
King-Zettler 25	140	140	34x5	34x5	34x5	34x5	4 1/2 x 4 1/2	28.9	L	FP	Non	McC	Str	G	Bos	Bos	B-L	B-L	3	Spi	B	5.2	22.8	A	Tim 1452	3780
Kleber	2600	130	34x5	34x5	34x5	34x5	4 1/2 x 4 1/2	22.5	L	PC	Non	Own	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.33	21.3	B	Col 5300	2630
LeMoon GP-1	130	130	34x5	34x5	34x5	34x5	4 1/2 x 4 1/2	22.5	L	PC	Non	Own	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.33	21.3	B	Col 5300	2630
Leudering	132	132	33x5	33x5	33x5	33x5	3 1/2 x 4 1/2	22.5	L	PC	Non	Own	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.33	21.3	B	Col 5300	2630
Master 11B	132	132	33x5	33x5	33x5	33x5	3 1/2 x 4 1/2	22.5	L	PC	Non	Own	Zen	G	Bos	Bos	B-L	B-L	3	Spi	B	5.33	21.3	B	Col 5300	2630
Manomine	1870	130	30x5	30x5	30x5	30x5	4 x 5	25.6	H	PC	Non	Per	Zen	G	Bos	Bos	B-L	B-L	3	Blo	S	4.88	18.3	A	Tim 1250	2025
Moreland R-R	2280	180	32x5	32x5	32x5	32x5	4 x 5	25.6	H	PC	Non	Own	Zen	G	Bos	Bos	B-L	B-L	3	Blo	S	4.88	18.3	A	Tim 1250	2025
Moreland RC	1595	130	32x5	32x5	32x5	32x5	4 x 5	25.6	H	PC	Non	Own	Zen	G	Bos	Bos	B-L	B-L	3	Blo	S	4.88	18.3	A	Tim 1250	2025
Nash 2018	1775	143	34x5	34x5	34x5	34x5	4 1/2 x 4 1/2	22.5	L	PC	Non	Own	Zen	G	Bos	Bos	B-L	B-L	3	Blo	S	4.88	18.3	A	Tim 1250	2025
Noble A-76		130	32x5	32x5	32x5	32x5	4 1/2 x 4 1/2	22.5	L	PC	Non	Own	Zen	G	Bos	Bos	B-L	B-L	3	Blo	S	4.88	18.3	A	Tim 1250	2025
Orden A2		125	34x5	34x5	34x5	34x5	4 1/2 x 4 1/2	22.5	L	PC	Non	Chi	Str	G	Bos	Bos	B-L	B-L	3	Blo	S	4.88	18.3	A	Tim 1250	2025



Key of abbreviations, page 35

Trade Name and Model	General			Engine						Electrical System		Clutch	Gearset		Rear Axle		Gear Ratios		Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.)			
	Standard Wheelbase (inches)	Tire Size (inches)		Bore and Stroke (inches)	N.A.C.C. Rated H.P.	Valve Arrangement	Oiling System	Governor (Make)	Radiator (Make)	Fuel System			Generator and Starter (Make)	Type	Make and Model	Location	No. of Forward Speeds	Type							Total Reduction in High	Total Reduction in Low	Brakes, Location
		Front (inches)	Rear (inches)							Carburetor (Make)	Fuel Feed																
1 Ton—Con'd																											
Penn. Overland	122	30x31½	32x31½	34x5	10.6	L	PS	Non	Own	Til	G	A-L	A-L	B&B	D	Own	She	W	6.50	20.0	Own	2175	2700	2500	2175		
Ramier R-29	122	30x5	35x5	34x5	22.5	L	PS	Non	Own	Har	Zen	Rem	Rem	B&B	D	Own	She	W	6.50	20.0	Own	2175	2700	2500	2175		
Rugles 16	122	30x5	35x5	34x5	22.5	L	PS	Non	Own	Har	Zen	Rem	Rem	B&B	D	Own	She	W	6.50	20.0	Own	2175	2700	2500	2175		
Sandow G.	120	30x5	35x5	34x5	22.5	L	PS	Non	Own	Har	Zen	Rem	Rem	B&B	D	Own	She	W	6.50	20.0	Own	2175	2700	2500	2175		
Sandow G.A.	120	30x5	35x5	34x5	22.5	L	PS	Non	Own	Har	Zen	Rem	Rem	B&B	D	Own	She	W	6.50	20.0	Own	2175	2700	2500	2175		
Schacht	132	30x5	35x5	34x5	22.5	L	PS	Non	Own	Har	Zen	Rem	Rem	B&B	D	Own	She	W	6.50	20.0	Own	2175	2700	2500	2175		
Service 25H	146	32x41½	32x41½	34x5	22.5	L	PS	Non	Own	Har	Zen	Rem	Rem	B&B	D	Own	She	W	6.50	20.0	Own	2175	2700	2500	2175		
Stewart 16	124½	32x41½	32x41½	34x5	22.5	L	PS	Non	Own	Har	Zen	Rem	Rem	B&B	D	Own	She	W	6.50	20.0	Own	2175	2700	2500	2175		
United 15	125	32x41½	32x41½	34x5	22.5	L	PS	Non	Own	Har	Zen	Rem	Rem	B&B	D	Own	She	W	6.50	20.0	Own	2175	2700	2500	2175		
U.S. U.	125	32x41½	32x41½	34x5	22.5	L	PS	Non	Own	Har	Zen	Rem	Rem	B&B	D	Own	She	W	6.50	20.0	Own	2175	2700	2500	2175		
Wachusett S.	2055	32x41½	32x41½	34x5	22.5	L	PS	Non	Own	Har	Zen	Rem	Rem	B&B	D	Own	She	W	6.50	20.0	Own	2175	2700	2500	2175		
Wilcox A.A.	1900	32x41½	32x41½	34x5	22.5	L	PS	Non	Own	Har	Zen	Rem	Rem	B&B	D	Own	She	W	6.50	20.0	Own	2175	2700	2500	2175		
Yellow Cab T-1	1450	32x41½	32x41½	34x5	22.5	L	PS	Non	Own	Har	Zen	Rem	Rem	B&B	D	Own	She	W	6.50	20.0	Own	2175	2700	2500	2175		
Yellow Cab T-1-1	1860	32x41½	32x41½	34x5	22.5	L	PS	Non	Own	Har	Zen	Rem	Rem	B&B	D	Own	She	W	6.50	20.0	Own	2175	2700	2500	2175		
Yellow Knight T-2	1095	32x41½	32x41½	34x5	22.5	L	PS	Non	Own	Har	Zen	Rem	Rem	B&B	D	Own	She	W	6.50	20.0	Own	2175	2700	2500	2175		
1½ Ton																											
Autocar F.	97	34x41	34x41	34x5	18.1	L	SP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Autocar G.	120	34x41	34x41	34x5	18.1	L	SP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Biederman	154	34x5	34x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Brookway E.	135	32x6	32x6	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Brookway E7	153	32x6	32x6	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Brookway EX	150	30x5	30x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Clinton 20B	160	30x5	30x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Clinton 20	150	30x5	30x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Clydesdale 10A.	154	34x5	34x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Defiance G2	128	34x5	34x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Eagle 101	134	34x5	34x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Federal R-3	1675	32x5	32x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Gramm-Kincaid 233N	129	30x5	30x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Gramm-Kincaid 263N	133	30x5	30x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Guider B-4	132	30x5	30x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Hahn B2	1800	32x5	32x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Larabee-Devo X-21	138	32x5	32x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Macar EX.	132	32x5	32x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Master 11	132	32x5	32x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Memorine HT	1390	32x5	32x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Northway Rocket	132	30x5	30x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Patriot 17R	132	30x5	30x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Reo F.	1035	32x5	32x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Reo F.	1185	32x5	32x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Republic 75	128	32x5	32x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Rugles 20R	151	30x5	30x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Sanford Pacemaker 24	144	30x5	30x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Selden Pacemaker 26	144	30x5	30x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Standard 75	1370	32x5	32x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Stewart 16X	130	32x5	32x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Stoughton C.	130	32x5	32x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
United 20	131	30x5	30x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
Victor 25	1635	32x5	32x5	34x5	22.5	L	FP	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	8.30	33.2	Own	3900	3900	3900	3900		
1½ Ton																											
Autocar 20L	136	34x5	34x5	34x5	27.3	L	PC	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	6.25	30.0	Own	3565	3565	3565	3565		
Armleder 30	148	34x4	34x4	34x5	25.6	L	PC	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	6.25	30.0	Own	3565	3565	3565	3565		
Armleder 30B	148	34x4	34x4	34x5	25.6	L	PC	Non	Own	Str	G	A-L	A-L	B&B	D	Own	She	W	6.25	30.0	Own	3565	3565	3565	356		



Model	Price	Capacity	Engine	Transmission	Drive	Weight	Speed	Range	Notes
Model 12	152	12	12	12	12	12	12	12	...
Model 14	166	14	14	14	14	14	14	14	...
Model 16	180	16	16	16	16	16	16	16	...
Model 18	194	18	18	18	18	18	18	18	...
Model 20	208	20	20	20	20	20	20	20	...
Model 22	222	22	22	22	22	22	22	22	...
Model 24	236	24	24	24	24	24	24	24	...
Model 26	250	26	26	26	26	26	26	26	...
Model 28	264	28	28	28	28	28	28	28	...
Model 30	278	30	30	30	30	30	30	30	...
Model 32	292	32	32	32	32	32	32	32	...
Model 34	306	34	34	34	34	34	34	34	...
Model 36	320	36	36	36	36	36	36	36	...
Model 38	334	38	38	38	38	38	38	38	...
Model 40	348	40	40	40	40	40	40	40	...
Model 42	362	42	42	42	42	42	42	42	...
Model 44	376	44	44	44	44	44	44	44	...
Model 46	390	46	46	46	46	46	46	46	...
Model 48	404	48	48	48	48	48	48	48	...
Model 50	418	50	50	50	50	50	50	50	...
Model 52	432	52	52	52	52	52	52	52	...
Model 54	446	54	54	54	54	54	54	54	...
Model 56	460	56	56	56	56	56	56	56	...
Model 58	474	58	58	58	58	58	58	58	...
Model 60	488	60	60	60	60	60	60	60	...
Model 62	502	62	62	62	62	62	62	62	...
Model 64	516	64	64	64	64	64	64	64	...
Model 66	530	66	66	66	66	66	66	66	...
Model 68	544	68	68	68	68	68	68	68	...
Model 70	558	70	70	70	70	70	70	70	...
Model 72	572	72	72	72	72	72	72	72	...
Model 74	586	74	74	74	74	74	74	74	...
Model 76	600	76	76	76	76	76	76	76	...
Model 78	614	78	78	78	78	78	78	78	...
Model 80	628	80	80	80	80	80	80	80	...
Model 82	642	82	82	82	82	82	82	82	...
Model 84	656	84	84	84	84	84	84	84	...
Model 86	670	86	86	86	86	86	86	86	...
Model 88	684	88	88	88	88	88	88	88	...
Model 90	698	90	90	90	90	90	90	90	...
Model 92	712	92	92	92	92	92	92	92	...
Model 94	726	94	94	94	94	94	94	94	...
Model 96	740	96	96	96	96	96	96	96	...
Model 98	754	98	98	98	98	98	98	98	...
Model 100	768	100	100	100	100	100	100	100	...
Model 102	782	102	102	102	102	102	102	102	...
Model 104	796	104	104	104	104	104	104	104	...
Model 106	810	106	106	106	106	106	106	106	...
Model 108	824	108	108	108	108	108	108	108	...
Model 110	838	110	110	110	110	110	110	110	...
Model 112	852	112	112	112	112	112	112	112	...
Model 114	866	114	114	114	114	114	114	114	...
Model 116	880	116	116	116	116	116	116	116	...
Model 118	894	118	118	118	118	118	118	118	...
Model 120	908	120	120	120	120	120	120	120	...
Model 122	922	122	122	122	122	122	122	122	...
Model 124	936	124	124	124	124	124	124	124	...
Model 126	950	126	126	126	126	126	126	126	...
Model 128	964	128	128	128	128	128	128	128	...
Model 130	978	130	130	130	130	130	130	130	...
Model 132	992	132	132	132	132	132	132	132	...
Model 134	1006	134	134	134	134	134	134	134	...
Model 136	1020	136	136	136	136	136	136	136	...
Model 138	1034	138	138	138	138	138	138	138	...
Model 140	1048	140	140	140	140	140	140	140	...
Model 142	1062	142	142	142	142	142	142	142	...
Model 144	1076	144	144	144	144	144	144	144	...
Model 146	1090	146	146	146	146	146	146	146	...
Model 148	1104	148	148	148	148	148	148	148	...
Model 150	1118	150	150	150	150	150	150	150	...
Model 152	1132	152	152	152	152	152	152	152	...
Model 154	1146	154	154	154	154	154	154	154	...
Model 156	1160	156	156	156	156	156	156	156	...
Model 158	1174	158	158	158	158	158	158	158	...
Model 160	1188	160	160	160	160	160	160	160	...
Model 162	1202	162	162	162	162	162	162	162	...
Model 164	1216	164	164	164	164	164	164	164	...
Model 166	1230	166	166	166	166	166	166	166	...
Model 168	1244	168	168	168	168	168	168	168	...
Model 170	1258	170	170	170	170	170	170	170	...
Model 172	1272	172	172	172	172	172	172	172	...
Model 174	1286	174	174	174	174	174	174	174	...
Model 176	1300	176	176	176	176	176	176	176	...
Model 178	1314	178	178	178	178	178	178	178	...
Model 180	1328	180	180	180	180	180	180	180	...
Model 182	1342	182	182	182	182	182	182	182	...
Model 184	1356	184	184	184	184	184	184	184	...
Model 186	1370	186	186	186	186	186	186	186	...
Model 188	1384	188	188	188	188	188	188	188	...
Model 190	1398	190	190	190	190	190	190	190	...
Model 192	1412	192	192	192	192	192	192	192	...
Model 194	1426	194	194	194	194	194	194	194	...
Model 196	1440	196	196	196	196	196	196	196	...
Model 198	1454	198	198	198	198	198	198	198	...
Model 200	1468	200	200	200	200	200	200	200	...
Model 202	1482	202	202	202	202	202	202	202	...
Model 204	1496	204	204	204	204	204	204	204	...
Model 206	1510	206	206	206	206	206	206	206	...
Model 208	1524	208	208	208	208	208	208	208	...
Model 210	1538	210	210	210	210	210	210	210	...
Model 212	1552	212	212	212	212	212	212	212	...
Model 214	1566	214	214	214	214	214	214	214	...
Model 216	1580	216	216	216	216	216	216	216	...
Model 218	1594	218	218	218	218	218	218	218	...
Model 220	1608	220	220	220	220	220	220	220	...
Model 222	1622	222	222	222	222	222	222	222	...
Model 224	1636	224	224	224	224	224	224	224	...
Model 226	1650	226	226	226	226	226	226	226	...
Model 228	1664	228	228	228	228	228	228	228	...
Model 230	1678	230	230	230	230	230	230	230	...
Model 232	1692	232	232	232	232	232	232	232	...
Model 234	1706	234	234	234	234	234	234	234	...
Model 236	1720	236	236	236	236	236	236	236	...
Model 238	1734	238	238	238	238	238	238	238	...
Model 240	1748	240	240	240	240	240	240	240	...
Model 242	1762	242	242	242	242	242	242	242	...
Model 244	1776	244	244	244	244	244	244	244	...
Model 246	1790	246	246	246	246	246	246	246	...
Model 248	1804	248	248	248	248	248	248	248	...
Model 250	1818	250	250	250	250	250	250	250	...
Model 252	1832	252	252	252	252	252	252	252	...
Model 254	1846	254	254	254	254	254	254	254	...
Model 256	1860	256	256	256	256	256	256	256	...
Model 258	1874	258	258	258	258	258	258	258	...
Model 260	1888	260	260	260	260	260	260	260	...
Model 262	1902	262	262	262	262	262	262	262	...
Model 264	1916	264	264	264	264	264	264	264	...
Model 266	1930	266	266	266	266	266	266	266	...
Model 268	1944	268	268	268	268	268	268	268	...
Model 270	1958	270	270	270	270	270	270	270	...
Model 272	1972	272	272	272	272	272	272	272	...
Model 274	1986	274	274	274	274	274	274	274	...
Model 276	2000	276	276	276	276	276	276	276	...
Model 278	2014	278	278	278	278	278	278	278	...
Model 280	2028	280	280	280	280	280	280	280	...
Model 282	2042	282	282	282	282	282	282	282	...
Model 284	2056	284	284	284	284	284	284	284	...
Model 286	2070	286	286	286	286	286	286	286	...
Model 288	2084	288	288	288	288	288	288	288	...
Model 290	2098	290	290	290	290	290	290	290	...
Model 292	2112	292	292	292	292	292	292	292	...
Model 294	2126	294	294	294	294	294	294	294	...
Model 296	2140	296	296	296	296	296	296	296	...
Model 298	2154	298	298	298	298	298	298	298	...
Model 300	2168	300	300	300	300	300	300	300	...
Model 302	2182	302	302	302	302	302	3		

Key of abbreviations, page 35

Trade Name and Model	General			Engine					Electrical System		Clutch		Gearset		Rear Axle		Gear Ratios		Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.)						
	Chassis Price	Standard Wheelbase (inches)	Tire Size (inches)	Rear (inches)	Front (inches)	Bore and Stroke (inches)	N.A.C.C. Rated H.P.	Valve Arrangement		Cylinder System		Governor (Make)	Radiator (Make)	Fuel System		Ignition System		Generator and Starter (Make)							Type	Make and Model	Final Drive	Type	Total Reduction in High	Total Reduction in Low
								Valve Arrangement	Cylinder System	Governor (Make)	Radiator (Make)			Fuel System	Ignition System	Generator and Starter (Make)														
2 Ton—Con'd																														
Autocar G	120	34x4†	34x7†	34x7†	34x7†	4 1/2 x 5 1/2	18.1	L	SP	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	3900							
Autocar FH	118	34x5†	34x7†	34x7†	34x7†	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	5100							
Autocar GK	124	34x5†	34x7†	34x7†	34x7†	4 1/2 x 5 1/2	25.6	L	SP	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	5200							
Available L-2	2495	36x4	36x6†	36x6†	36x6†	4 1/2 x 5 1/2	25.6	L	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4750							
Bethlehem GN	137 1/2	36x4	36x6†	36x6†	36x6†	4 1/2 x 5 1/2	25.6	L	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4100							
Brookway SK	147	32x6*	34x7†	34x7†	34x7†	4 1/2 x 5 1/2	27.3	H	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4050							
Brookway SY2	150	36x4†	36x7†	36x7†	36x7†	4 1/2 x 5 1/2	27.3	H	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4200							
Buck 44	160	36x4†	36x7†	36x7†	36x7†	4 1/2 x 5 1/2	27.3	H	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4200							
Buck 46	160	36x4†	36x7†	36x7†	36x7†	4 1/2 x 5 1/2	27.3	H	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4200							
Buck 48	160	36x4†	36x7†	36x7†	36x7†	4 1/2 x 5 1/2	27.3	H	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4200							
Casco C	2700	32x6	36x8	36x8	36x8	4 1/2 x 5 1/2	22.5	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	5000							
Casco D	2950	32x6	36x8	36x8	36x8	4 1/2 x 5 1/2	22.5	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	5000							
Chrysler 45	163	34x4†	34x6†	34x6†	34x6†	4 1/2 x 5 1/2	25.6	L	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	5000							
Chrysler 9	140	36x6*	36x8	36x8	36x8	4 1/2 x 5 1/2	28.9	L	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	5000							
Concord 814	3250	140	36x6*	36x8†	36x8†	4 1/2 x 5 1/2	28.9	L	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	5000							
Concord H	3700	160	36x6*	36x8†	36x8†	4 1/2 x 5 1/2	28.9	L	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	5000							
Corbitt C	145	36x4†	36x7†	36x7†	36x7†	4 1/2 x 5 1/2	22.5	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4300							
Day-Elder HST	144	34x4†	34x5†	34x5†	34x5†	4 1/2 x 5 1/2	22.5	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4300							
Day-Elder HSM	144	34x4†	34x5†	34x5†	34x5†	4 1/2 x 5 1/2	22.5	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4300							
Day Elder HSM	144	34x4†	34x5†	34x5†	34x5†	4 1/2 x 5 1/2	22.5	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4300							
Defiance E2	2800	146	35x5	35x7	35x7	4 1/2 x 5 1/2	22.5	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4450							
Dixon	146	34x4	34x7	34x7	34x7	4 1/2 x 5 1/2	22.5	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4450							
Duplex A	160	34x4†	36x7†	36x7†	36x7†	4 1/2 x 5 1/2	28.9	L	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4300							
Eagle 104	3750	130	34x4†	34x5†	34x5†	4 1/2 x 5 1/2	25.6	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4300							
Federal 235	144	34x4	34x5†	34x5†	34x5†	4 1/2 x 5 1/2	25.6	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4300							
Federal 227	144	34x4	34x5†	34x5†	34x5†	4 1/2 x 5 1/2	25.6	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4300							
Gramm-Kincaid 443N	133	32x6*	32x8†	32x8†	32x8†	4 1/2 x 5 1/2	25.6	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4400							
Gramm-Kincaid 463N	133	32x6*	32x8†	32x8†	32x8†	4 1/2 x 5 1/2	25.6	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4400							
Grass Premier 70	2650	152	34x4	34x5	34x5	4 1/2 x 5 1/2	27.3	H	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4700							
Guider E	2850	144	36x4	36x5	36x5	4 1/2 x 5 1/2	27.3	H	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4700							
Hahn K	118	36x4†	36x7†	36x7†	36x7†	4 1/2 x 5 1/2	22.5	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4700							
Hug HA2	130	36x4†	36x7†	36x7†	36x7†	4 1/2 x 5 1/2	22.5	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4700							
Int. Harvester 43	136	34x4	34x7†	34x7†	34x7†	4 1/2 x 5 1/2	25.6	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4620							
Kearns N1	3100	156	36x4	36x5	36x5	4 1/2 x 5 1/2	25.6	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4300							
Kenworth M	3100	156	36x4	36x5	36x5	4 1/2 x 5 1/2	25.6	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4300							
King Zeithor 40	156	32x6*	34x7†	34x7†	34x7†	4 1/2 x 5 1/2	27.3	H	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	3750							
King Zeithor 42A	156	32x6*	34x7†	34x7†	34x7†	4 1/2 x 5 1/2	27.3	H	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	3750							
Lehigh	1795	Opt	32x6	32x6	32x6	4 1/2 x 5 1/2	27.3	H	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	6300							
LeMoon GP-2	144	36x4	36x5	36x5	36x5	4 1/2 x 5 1/2	27.3	H	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4700							
Macaur 46	140	36x4	36x5	36x5	36x5	4 1/2 x 5 1/2	27.3	H	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4590							
Mac AB	140	36x4	36x5	36x5	36x5	4 1/2 x 5 1/2	27.3	H	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4590							
Mac AB	140	36x4	36x5	36x5	36x5	4 1/2 x 5 1/2	27.3	H	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4590							
Moreland EC	3780	178	34x4	34x5	34x5	4 1/2 x 5 1/2	27.3	H	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4590							
Nash... 3018	2100	180	34x4	34x5	34x5	4 1/2 x 5 1/2	27.3	H	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4590							
Noble B01	2980	160	36x4	36x5	36x5	4 1/2 x 5 1/2	27.3	H	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4590							
Oakleaf AW	3180	163	36x4	36x5	36x5	4 1/2 x 5 1/2	27.3	H	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4590							
Oakleaf AW	3180	163	36x4	36x5	36x5	4 1/2 x 5 1/2	27.3	H	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4590							
Patriot 35	2300	144	36x4	36x5	36x5	4 1/2 x 5 1/2	27.3	H	PC	Pha	Chi	Zen	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4590							
Penn.	925	138	30x3 1/2	30x3 1/2	30x3 1/2	4 1/2 x 5 1/2	25.6	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4400							
Penn.	925	138	30x3 1/2	30x3 1/2	30x3 1/2	4 1/2 x 5 1/2	25.6	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4400							
Penn.	925	138	30x3 1/2	30x3 1/2	30x3 1/2	4 1/2 x 5 1/2	25.6	L	PC	Non	Own	Str	G	Bos	Own	Own F	A	Spi	Own F	Del	Ros	Hoo	4400							
Penn.	925	138	30x3 1/2	30x3 1/2	30x3 1/2																									



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Trade Name and Model	General		Engine						Electrical System		Clutch		Gearset		Rear Axle		Gear Ratios		Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Tires (Make)	Chassis Weight (Lbs.)
	Standard Wheelbase (Inches)	Tire Size (Inches)	Bore and Stroke (Inches)	N.A.C.C. Rated H.P.	Valve Arrangement		Oiling System		Governor (Make)	Radiator (Make)	Fuel System		Ignition System (Make)	Generator and Starter (Make)	Type	Make and Model	Type	Total Reduction in High						
					Valve Arrangement	Oiling System	Governor (Make)	Radiator (Make)			Carburetor (Make)	Fuel Feed												
2½ Ton—Con'd																								
Sterling DW-12	142	36x7	4 1/2 x 5 1/2	25.6	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	7.25	8.8	Tim	Mat	Ros	Hoo	5100			
Stearns 19	3200	36x8	4 1/2 x 5 1/2	31.5	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	6.00	43.2	Tim	Mat	Ros	Hoo	5200			
Super Truck 50	3200	36x8	4 1/2 x 5 1/2	25.6	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.25	42.0	Tim	Mat	Ros	Hoo	5200			
Traffic City RW	2800	36x8	4 1/2 x 5 1/2	28.9	H	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.00	38.4	Tim	Mat	Ros	Hoo	5625			
Twin City RW	36x10	36x10	4 1/2 x 5 1/2	28.9	H	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	7.75	41.5	Tim	Mat	Ros	Hoo	5600			
Union F.W. & P.W.	155	36x5	4 1/2 x 5 1/2	25.6	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.66	20.0	Tim	Mat	Ros	Hoo	5600			
Union F	155	36x5	4 1/2 x 5 1/2	25.6	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.66	20.0	Tim	Mat	Ros	Hoo	5600			
United 50	156	36x4	4 1/2 x 5 1/2	25.6	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	7.75	41.5	Tim	Mat	Ros	Hoo	5600			
U.S. R.	3600	36x4	4 1/2 x 5 1/2	25.6	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.66	20.0	Tim	Mat	Ros	Hoo	5600			
Victor 70	2925	36x4	4 1/2 x 5 1/2	25.6	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	7.75	41.5	Tim	Mat	Ros	Hoo	5600			
Wachsmann	2675	36x4	4 1/2 x 5 1/2	25.6	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	7.75	41.5	Tim	Mat	Ros	Hoo	5600			
Ward LaFrance 2B	170	36x1	4 1/2 x 5 1/2	30.6	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	7.25	37.75	Tim	Mat	Ros	Hoo	5600			
White 51	3750	36x5	4 1/2 x 5 1/2	28.9	H	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.60	42.3	Tim	Mat	Ros	Hoo	5700			
Winco CC	3000	36x5	4 1/2 x 5 1/2	28.9	H	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.60	42.3	Tim	Mat	Ros	Hoo	5700			
Winco 44	3100	36x5	4 1/2 x 5 1/2	28.9	H	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.25	40.0	Tim	Mat	Ros	Hoo	5700			
Wirt-Will S.	3100	36x8	4 1/2 x 5 1/2	27.2	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.25	40.0	Tim	Mat	Ros	Hoo	5800			
3 Ton																								
Aome 60L	156	36x4	4 1/2 x 5 1/2	32.4	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.50	42.0	Tim	Mat	Ros	Hoo	6050			
Armleder 60	152	36x5	4 1/2 x 5 1/2	32.4	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.50	42.0	Tim	Mat	Ros	Hoo	6050			
Autocar H	114	34x6	4 1/2 x 5 1/2	25.6	L	SP	Pha	Bus	Zen	Eis	Rem	R-L	B-L 35	D	7.75	46.3	Tim	Mat	Ros	Hoo	5500			
Autocar K	138	34x6	4 1/2 x 5 1/2	25.6	L	SP	Pha	Bus	Zen	Eis	Rem	R-L	B-L 35	D	7.75	46.3	Tim	Mat	Ros	Hoo	5500			
Autocar HPDS	114	34x6	4 1/2 x 5 1/2	25.6	L	SP	Pha	Bus	Zen	Eis	Rem	R-L	B-L 35	D	7.75	46.3	Tim	Mat	Ros	Hoo	6000			
Autocar K13	153	36x4	4 1/2 x 5 1/2	27.2	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	7.75	46.3	Tim	Mat	Ros	Hoo	5260			
Brookway K16	154	36x4	4 1/2 x 5 1/2	32.4	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	7.75	46.3	Tim	Mat	Ros	Hoo	5260			
Brookway KR	156	36x4	4 1/2 x 5 1/2	32.4	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	7.75	46.3	Tim	Mat	Ros	Hoo	5260			
Brookway KHB	163	36x4	4 1/2 x 5 1/2	32.4	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	7.75	46.3	Tim	Mat	Ros	Hoo	5260			
Buck 64	36x10	36x5	4 1/2 x 5 1/2	32.4	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	9.25	37.8	Tim	Mat	Ros	Hoo	6100			
Champion 65	184	34x5	4 1/2 x 5 1/2	32.4	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.50	45.5	Tim	Mat	Ros	Hoo	6225			
Clydesdale 6	163	36x5	4 1/2 x 5 1/2	32.4	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	9.25	49.4	Tim	Mat	Ros	Hoo	5850			
Clydesdale 6X	163	36x5	4 1/2 x 5 1/2	32.4	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	9.25	49.4	Tim	Mat	Ros	Hoo	5850			
Commerce "Relay" 30	156	36x6	4 1/2 x 5 1/2	32.4	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	9.00	49.9	Tim	Mat	Ros	Hoo	5700			
Concord J.L.	3600	170	36x4	4 1/2 x 5 1/2	32.4	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	10.30	55.1	Tim	Mat	Ros	Hoo	6160		
Concord R.	160	36x4	4 1/2 x 5 1/2	32.4	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	9.25	49.5	Tim	Mat	Ros	Hoo	5140			
Day-Elder J.	156	36x4	4 1/2 x 5 1/2	27.2	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	9.50	45.6	Tim	Mat	Ros	Hoo	5340			
Defiance H2	160	36x4	4 1/2 x 5 1/2	27.2	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	9.50	45.6	Tim	Mat	Ros	Hoo	5340			
Defiance HL2	175	36x4	4 1/2 x 5 1/2	27.2	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	9.50	45.6	Tim	Mat	Ros	Hoo	5340			
Defiance H13	163	36x4	4 1/2 x 5 1/2	27.2	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	9.25	45.3	Tim	Mat	Ros	Hoo	5300			
Denny 35	36x8	36x8	4 1/2 x 5 1/2	27.2	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	9.25	45.3	Tim	Mat	Ros	Hoo	6300			
Dixson	3700	158	36x5	36.1	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.50	39.5	Tim	Mat	Ros	Hoo	6230			
Double Drive "T"	4000	144	36x6	36.1	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.50	39.5	Tim	Mat	Ros	Hoo	6230			
Duplex AC	165	34x5	4 1/2 x 5 1/2	28.9	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	7.75	45.4	Tim	Mat	Ros	Hoo	7000			
Fargo 340	4000	172	36x5	30.6	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	7.75	45.4	Tim	Mat	Ros	Hoo	7000			
Federal UB6	326x	326x	4 1/2 x 5 1/2	33.7	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	5.60	69.5	Tim	Mat	Ros	Hoo	5900			
Federal UB6	144	326x	4 1/2 x 5 1/2	33.7	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	5.60	69.5	Tim	Mat	Ros	Hoo	5900			
Forchier E.	4200	144	36x6	36.1	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.00	35.0	Tim	Mat	Ros	Hoo	6300			
F.W.D. R.	3750	150	36x6	36.1	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.50	41.0	Tim	Mat	Ros	Hoo	5850			
Gary Oil Field Four	4250	160	36x6	36.1	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.50	41.0	Tim	Mat	Ros	Hoo	5850			
Gary Oil Field Six	4250	160	36x6	36.1	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.50	41.0	Tim	Mat	Ros	Hoo	5850			
Jefferson 60	152	36x5	4 1/2 x 5 1/2	30.6	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	5.60	69.5	Tim	Mat	Ros	Hoo	6200			
Gramm-Hernstein 30	152	36x5	4 1/2 x 5 1/2	30.6	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	5.60	69.5	Tim	Mat	Ros	Hoo	6200			
Gramm-Hernstein 6480	152	36x5	4 1/2 x 5 1/2	30.6	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	5.60	69.5	Tim	Mat	Ros	Hoo	6200			
Gullder H.	3750	144	36x4	36.1	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.5	42.0	Tim	Mat	Ros	Hoo	5900			
Hahn L.	4700	192	36x6	36.1	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.5	42.0	Tim	Mat	Ros	Hoo	5900			
Indiana 26	160	36x4	4 1/2 x 5 1/2	30.6	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.75	33.0	Tim	Mat	Ros	Hoo	6500			
Int. Harvester 63	3750	160	36x4	36.1	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	9.00	63.1	Tim	Mat	Ros	Hoo	6800			
Kenworth K-8	4100	165	36x5	36.1	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	7.75	46.8	Tim	Mat	Ros	Hoo	6300			
King Zellerbach 60	4100	165	36x5	36.1	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	7.75	46.8	Tim	Mat	Ros	Hoo	6300			
Kleiber Spec.	4855	266	36x5	36.1	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.50	45.4	Tim	Mat	Ros	Hoo	6450			
Langue "H"	156	36x4	4 1/2 x 5 1/2	28.9	L	PC	Wau	G&O	Zen	Eis	Rem	R-L	B-L 35	D	8.50	45.4	Tim	Mat	Ros	Hoo	6300			
Marcus H-3	175	36x4	4 1/2 x 5 1/2	28.9	L																			

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Trade Name and Model	General			Engine					Electrical System		Clutch	Gearset		Rear Axle		Gear Ratios		Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Tires (Make)	Chassis Weight (lbs.)	
	Standard Wheelbase (inches)	Tire Size (inches)		N.A.C.C. Rated H.P.	Bore and Stroke (inches)	Make and Model	Engine System		Fuel System	Ignition System (Make)		Generator and Starter (Make)	Type	Make and Model	Type	Total Reduction in High	Total Reduction in Low							Brakes, Location
		Front (inches)	Rear (inches)				Valve Arrangement	Oiling System																
4 Ton—Con'd																								
Clinton 90M.....	190	36x6	36x10	32.4	4 1/2 x 6	Bud YTU	L	PC	K.P.	Own	Zen	Bos	Bos	D	B-L 55 Max	W	W	8.75:53.1	13.0	A	Tim 1632B	7480		
Corbit A.....	178	36x5	36x12	32.4	4 1/2 x 6	Con L-4	L	PC	Sim	McC	Str	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Day-Elder K.....	162	36x6	36x12	32.4	4 1/2 x 6	Bud YBU	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Denby 27.....	170	36x5	36x12	32.4	4 1/2 x 6	Con L-4	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Dorris K8.....	435.5	Opt	36x12	32.4	4 1/2 x 6	Own DU	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Federal W3.....	4200	157	36x6	32.4	4 1/2 x 6	Con L-4	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Garford 80.....	162	36x6	40x12	32.4	4 1/2 x 6	Bud YBU	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Gramm-Bernstein 40.....	166	36x6	40x12	32.4	4 1/2 x 6	Con L-4	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Gramm-Kinsaid 8480.....	152	36x5	36x12	32.4	4 1/2 x 6	Her L	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Gramm-K.P. (low bed).....	280	36x5	36x12	32.4	4 1/2 x 6	Her L	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Guidler J.....	170	36x6	40x12	32.4	4 1/2 x 6	Bud YBU	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Indiana 41.....	170	36x6	40x12	32.4	4 1/2 x 6	Bud YBU	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Kenworth L.....	4500	168	36x6	32.4	4 1/2 x 6	Con L-4	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Kiesel Heavy Duty.....	178	36x5	36x12	32.4	4 1/2 x 6	Wau VAU	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Macfar M2.....	158	36x5	40x12	32.4	4 1/2 x 6	Jackson	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Master 55.....	158	36x5	40x12	32.4	4 1/2 x 6	Bud YTU	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Noble E-72.....	4150	164	36x5	32.4	4 1/2 x 6	Wau WC	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Pierce Arrow WC.....	4900	174	36x6	32.4	4 1/2 x 6	Bud YRU	L	PC	K-P	Own	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Schneider C.....	4400	168	36x5	32.4	4 1/2 x 6	Wau RCU	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Selden 73.....	174	36x6	36x12	32.4	4 1/2 x 6	Wau B-5	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Union H.....	174	36x6	36x10	32.4	4 1/2 x 6	Wau VAU	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Union HW.....	4800	168	36x6	32.4	4 1/2 x 6	Wau VAU	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Witt-Will A.....	4750	172	36x6	32.4	4 1/2 x 6	Con B5	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
4 1/2 Ton																								
Republic 30.....	170	36x5	36x12	32.4	4 1/2 x 6	Con L4	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Republic 30W.....	170	36x5	36x12	32.4	4 1/2 x 6	Wau CU	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
5 Ton																								
Acme 90L.....	177	36x6	40x12	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Amer. LaFrance V.....	5500	Opt	40x12	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Atterbury 24E.....	176	36x6	40x12	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Autocar L.....	120	36x6	40x12	32.4	4 1/2 x 6	Wau EU	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Autocar M.....	120	36x6	40x12	32.4	4 1/2 x 6	Wau EU	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Available L5.....	180	36x6	40x12	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Biederman.....	180	36x6	40x12	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Brookway T15.....	178	36x6	40x12	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Brookway TH.....	120	36x6	40x12	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Buck 84.....	182	36x6	40x12	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Chicago.....	182	36x6	40x12	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Clinton 120L.....	194	36x6	40x12	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Clinton 120M.....	204	36x6	40x12	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Clydesdale 2.....	176	36x7	40x12	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Columbia A.....	144	42x9	42x9	32.4	4 1/2 x 6	Bud YRU	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Day-Elder L.....	170	36x6	40x12	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Day-Elder 210.....	170	36x6	40x12	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Diamond T 8.....	180	36x6	40x12	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Federal X-4.....	4490	163	36x6	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Garford 100.....	4860	162	36x6	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
G.M.C. K-102A.....	184	36x6	40x12	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
G.M.C. K-102B.....	184	36x6	40x12	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Gramm-Bernstein 50.....	4850	170	36x6	32.4	4 1/2 x 6	Bud YRU	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Guidler K5.....	4250	152	36x5	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Hahn M2.....	4750	174	36x6	32.4	4 1/2 x 6	Wau EU	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Indiana 52.....	182	36x6	40x12	32.4	4 1/2 x 6	Con B-7	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Int. Harvester 103.....	160	36x6	40x12	32.4	4 1/2 x 6	Wau EU	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Kearns TF.....	5500	170	36x6	32.4	4 1/2 x 6	Wau EU	L	PC	Mon	Bus	Zen	Bos	Bos	D	B-L 55	W	W	10.33:55.3	10.0	A	She 4FA20	7370		
Kenworth RS.....	168	36x6	40x12	32.4	4 1/2 x 6	Con B-73																		



[illegible]

The Husky Wrench Company of Milwaukee, Wis., has brought out a new cabinet to display their complete line of Standard socket wrenches.

The new items shown for the first time are: A heavy duty ratchet, 20 in. long, of strong and compact design; two sizes of Speeders with up-set forged and milled ends and swivel grips; a complete line of square sockets ranging from  $\frac{3}{8}$  in. to 1 in. square; four additional large Hex sockets from 1  $\frac{13}{16}$  in. to 2  $\frac{3}{8}$  in. Hex for heavy duty set.

The cabinet was designed to meet the requirements of the dealer selling to garage mechanics and owners. The manufacturer claims that out of the assortment of units contained in the cabinet socket wrenches for every purpose can be selected.

The Blackhawk Mfg. Co., Milwaukee, Wis., is offering a special, heavy duty wrench set, designed to fill the urgent need of engine builders, electric and steam railways, power plants, oil refineries, ship and bridge builders.

This set of Quick Detachable Wrenches is guaranteed to stand up under extra hard service.

An analysis of electric trucks in service in New Orleans shows that there are now 168 trucks operating and 28 on order for delivery, and that during the past twelve months, a total of 68 new trucks has been purchased, ranging in size from one-half to five tons.

With the trucks now in service in New Orleans, the laundries are the largest users, operating 100 trucks. The next largest user is the New Orleans Public Service, operating 34 trucks; other users include dairies, candy manufacturers, transfer and storage, office supplies, sugar refineries, baking companies, bottling works and plate glass.

An inexpensive Socket Wrench Set, designed especially for individual use of owners who make occasional adjustments and minor repairs, is being offered by the Blackhawk Mfg. Co., Milwaukee, Wis. These sockets are machined from solid bar steel and properly heat treated. Set consists of six sockets and one offset handle. Packed in compact metal case.

The Electrical Testing Laboratories  
80th St. and East End Ave., New York  
will be glad to send free copies in any  
reasonable quantity to anyone who has  
use for them.

The approved devices listed and the directions for their adjustment are valid not only in the fifteen states and provinces represented in the eastern conference, but in many others as well.

[illegible]



## KEY OF ABBREVIATIONS

### Wheelbase:

\*—More than one wheelbase furnished.

### Tires:

§§—Unless marked otherwise all tires are solids.  
•—Pneumatics standard equipment.  
†—Pneumatics at Extra Cost.  
†\*—Dual pneumatics standard.  
††—Dual solids.  
†††—Dual pneumatics extra cost.

### Engine:

Bud—Buda Co., Harvey, Ill.  
Con—Continental M. Corp., Detroit, Mich.  
D—Head & Side  
FP—Full Pressure to all bearings including wrist pins.  
H—Overhead.  
HaS—Hall-Scott Motor Car Co., Berkeley, Cal.  
Her—Hercules Motors Corp., Canton, Ohio.  
Himco—Hinkley Motors, Inc., Detroit, Mich.  
Hin—Hinkley Motors, Inc., Detroit, Mich.  
H-S—Herschell-Spillman Motor Co., North Tonawanda, N. Y.  
I—In Head.  
Jackson—Master Motor Truck Mfg. Co., Chicago, Ill.  
Kni—Yellow Sleeve Valve Eng. Works, East Moline, Ill.  
L—L-Head.  
Lyc—Lycoming M. Corp., Williamsport, Pa.  
Overland—Willys-Overland Co., Toledo, O.  
PC—Pressure to all crankshaft and connecting rod bearings.  
PS—Pressure with splash.  
SP—Circulating splash.  
T—T-Head.  
Wau—Waukesha M. Co., Waukesha, Wis.  
Wis—Wisconsin M. Mfg. Co., Milwaukee, Wis.  
Yell—Yellow Sleeve V. E. Works, E. Moline, Ill.  
X—Sleeve.

### Governor:

Con—Continental M. Corp., Detroit, Mich.  
Dup—Eisemann Magneto Corp., New York.  
Han—Handy Gov. Co., Detroit, Mich.  
Hin—Hinkley Motors, Inc., Detroit, Mich.  
K. P.—K. P. Products Co., New York, N. Y.  
McK—E. R. Klemm, Chicago, Ill.  
Mon—Monarch Gov. Co., Detroit, Mich.  
Non—Not Supplied.  
Pha—Pharo Mfg. Co., Bethlehem, Pa.  
Pie—Pierce Governor Co., Anderson, Ind.  
Sim—Eisemann Magneto Corp., New York.  
Tac—Tractor Appliance Co., New Holstein, Wis.  
Wau—Waukesha M. Co., Waukesha, Wis.

### Radiator:

Bus—Bush Mfg. Co., Hartford, Conn.  
Chi—Chicago Mfg. Co., Chicago, Ill.  
E-M—English & Mersick Co., New Haven, Conn.  
Fed—Feddors Mfg. Co., Buffalo, N. Y.  
Fie—Flexo Mfg. Co., Los Angeles, Cal.  
G&O—G. & O. Mfg. Co., New Haven, Conn.  
Har—Harrison Rad. Corp., Lockport, N. Y.  
Idl—Ideal Sheet Metal Works, Chicago, Ill.  
Liv—Livingston Rad. Corp., Plainfield, N. J.  
Lon—Long Mfg. Co., Detroit, Mich.  
McC—McCord Rad. & Mfg. Co., Detroit, Mich.  
Mod—Modine Mfg. Co., Racine, Wis.  
Per—Racine Radiator Co., Racine, Wis.  
R-T—Rome-Turney Rad. Co., Rome, N. Y.  
Spa—Sparks-Withington Co., Jackson, Mich.  
Stn—Standard Radiator Co., Inc., Springfield, N. Y.  
U. S.—U. S. Cartridge Co., Lowell, Mass.

### Fuel System:

B.B.—Penberthy Injector Co., Detroit.  
Car—Carter Carburetor Co., St. Louis, Mo.  
Ens—Ensign Car. Co., Los Angeles, Cal.  
G—Gravity.  
Hol—Holley Carburetor Co., Detroit, Mich.  
Joh—Johnson Co., Detroit, Mich.  
Mar—Marvel Carburetor Co., Flint, Mich.  
P—Pressure.  
Ray—Beneke Mfg. Co., Chicago, Ill.  
Sch—Wheeler Schebler Carburetor Co., Indianapolis, Ind.  
Ste—Detroit Lubricator Co., Detroit, Mich.  
Str—Stromberg Motor Devices Co., Chicago, Ill.  
Til—Tillotson Mfg. Co., Toledo, Ohio.  
V—Vacuum.  
Zen—Zenith-Detroit Corp., Detroit, Mich.

### Electrical System:

†—Generator & Starter at Extra Cost.  
†—Starter not Supplied, Generator at Extra Cost.  
\*—Starter at Extra Cost.  
A-L—Electric Auto-Lite Corp., Toledo, O.  
Alc—Cincinnati S. B. Co., Cincinnati, O.  
Apo—Apolo Magneto Corp., Kingston, N. Y.  
Bij—Bijur Motor Appliance Co., Hoboken, N. J.  
Bos—American Bosch Magneto Co., Springfield, Mass.  
Con—Connecticut Telephone & Electric Co., Meriden, Conn.  
Del—Dayton Engin. Lab. Co., Dayton, Ohio.  
DJ—DeJohn Elec. Corp., Toledo, Ohio.  
Dyn—Cwen Dyneto Corp., Syracuse, N. Y.  
Eis—Eisemann Magneto Corp., New York.  
Ext—Electric S. B. Co., Phila., Pa.  
G&D—Gray & Davis, Boston, Mass.  
Gou—Gould S. B. Co., New York.  
Hob—Hobbs Battery Co., Los Angeles, Cal.  
L-N—Leece-Neville Co., Cleveland, O.  
N-E—North East Elec. Co., Rochester, N. Y.  
Non—Not Supplied.  
Pol—Prest-O-Lite Co., Indianapolis, Ind.  
Rem—Remy Electric Co., Anderson, Ind.  
RBo—Robert Bosch Magneto Co., New York, N. Y.  
Sci—Scintilla Magneto Co., New York, N. Y.  
Sim—Simms Magneto Co., E. Orange, N. J.  
Spl—Splittorf Electrical Co., Newark, N. J.  
USL—U. S. Light & Heat Corp., Niagara Falls, N. Y.  
Ves—Vesta Battery Corp., Chicago, Ill.  
Wes—Westinghouse Elec. & Mfg. Co., Springfield, Mass.  
Wil—Willard S. B. Co., Cleveland, O.

### Clutch and Gearset:

•—Other ratios optional.  
A—Amidships.  
B & B—Borg & Beck Co., Chicago, Ill.  
B-L—Brown-Lipe Gear Co., Syracuse, N. Y.  
Cot—Cotta Trans. Corp., Rockford, Ill.  
Cov—Covert Gear Co., Lockport, N. Y.  
Det—A. J. Detlaff Co., Detroit, Mich.  
D-G—Detroit Gear & Machine Co., Detroit, Mich.  
Dod—Dodge Brothers Co., Detroit, Mich.  
D-Disk.  
Dur—Durston Gear Corp., Syracuse, N. Y.  
Ful—Fuller & Sons Mfg. Co., Kalamazoo, Mich.  
H-S—Hele-Shaw, Merchant & Evans Co., Philadelphia, Pa.  
Hoo—Hoosier Clutch Co., Muncie, Ind.  
J—Unit with Jackshaft.  
K—Cone.  
Lon—Long Mfg. Co., Detroit, Mich.  
M-E—Merchant & Evans Co., Phila., Pa.  
M-M—Mechanics Mach. Co., Rockford, Ill.  
Mun—Muncie Gear Works, Muncie, Ind.  
C—Disk in Oil.  
P—Plate.  
R—Rear Axle.  
S—Separate Unit.  
U—Unit with Engine.  
W-G—Warner Gear Co., Muncie, Ind.

### Universal:

B.G.—Universal Machine Co., Bowling Green, Ohio.  
Blo—Blood-Bros. Mach. Co., Allegan, Mich.  
Det—Universal Products Co., Detroit, Mich.  
Har—Spicer Mfg. Co., S. Plainfield, N. J.  
M-E—Merchant & Evans Co., Phila., Pa.  
M-M—Mechanics Machine Co., Rockford, Ill.  
Pet—Cleveland Universal Parts Co., Cleveland, Ohio.  
Pic—Carl Pick Co., West Bend, Wis.  
Sne—Spicer Mfg. Corp., S. Plainfield, N. J.  
Spi—Spicer Mfg. Corp., S. Plainfield, N. J.  
The—Thermoid Rubber Co., Trenton, N. J.  
Thei—Universal Drive Shaft Co., Cleveland, Ohio.  
U-M—Universal Machine Co., Bowling Green, Ohio.  
U-P—Universal Products Co., Detroit, Mich.

### Front and Rear Axles:

½—Semi-Floating.  
¾—Three-Quarter Floating.  
Cla—Clark Equip. Co., Buchanan, Mich.  
Col—Columbia Axle Co., Cleveland, O.  
Con—Continental Axle Co., Edgerton, Wis.  
C—Chain.  
B—Straight Bevel.  
D—Dead.  
Eat—Eaton Axle Co., Cleveland, Ohio.  
F—Floating.  
I—Internal Gear.  
P—Spur Gear.  
R—Double Reduction.

Rus—Russel Motor Axle Co., Detroit, Mich.  
S—Spiral Bevel.  
Sal—Salisbury Axle Co., Jamestown, N. Y.  
She—Sheldon Axle & Spring Co., Wilkes-Barre, Pa.  
Shu—Shuler Axle Co., Inc., Louisville, Ky.  
Std—Standard Parts Co., Cleveland, O.  
Tim—Timken Det. Axle Co., Detroit, Mich.  
Tor—Eaton Axle & Spring Co., Cleveland, Ohio.  
Vul—Vulcan Motor Axle Co.  
Wal—Walker Axle Co., Chicago, Ill.  
W—Worm.  
Wis—Wisconsin Parts Co., Oshkosh, Wis.

### Brake:

A—Rear Wheels only.  
B—Drive Shaft and Rear Wheels.  
D—Jackshaft and Rear Wheels.  
E—4 Wheel Brakes.

### Springs:

Amc—American Autoparts Co., Detroit, Mich.  
Arm—General Motors Co., Pontiac, Mich.  
Bea—Beans Spring Co., Inc., Massillon, O.  
Bet—Betts Bros. Sp. Co., Inc., San Francisco, Cal.  
Cha—Champion Auto Sp. Co., St. Louis, Mo.  
Del—D. Delany & Son, Newark, N. J.  
Det—Detroit Steel Prod. Co., Detroit, Mich.  
G-C—Garden City Sp. Works, Chicago, Ill.  
Har—Harvey Sp. & Forging Co., Racine, Wis.  
Lah—Laher Auto Spring Co., Portland, Ore.  
Mar—Maremont Mfg. Co., Chicago, Ill.  
Mat—Mather Spring Co., Toledo, O.  
Mer—E. R. Merrill Spring Co., New York.  
Pen—Penn Sp. Works, Baldwinville, N. Y.  
Per—Eaton Bum. & Sp. Co., Cleveland, O.  
Row—William & Harvey Rowland, Phila., Pa.  
She—Sheldon Axle & Sp. Co., Wilkes-Barre, Pa.  
S. P.—Spring Perch Co., Stratford, Conn.  
S. S.—Standard Steel Sp. Co., Coraopolis, Pa.  
Tut—Tuthill Sp. Co., Chicago, Ill.  
U. S.—United States Sp. Co., Los Angeles, Cal.

### Steering Gear:

CAS—C. A. S. Products Co., Columbus, O.  
Dod—Dodge Bros. Co., Detroit, Mich.  
Gem—Gemmer Mfg. Co., Detroit, Mich.  
Han—Hannum Mfg. Co., Milwaukee, Wis.  
Jac—Saginaw Products Co., Saginaw, Mich.  
Lav—Hannum Mfg. Co.  
Ros—Ross Gear & Tool Co., Lafayette, Ind.  
Woh—Wohlrab Gear Co., Racine, Wis.

### Wheels:

Arc—Archibald Wheel Co., Lawrence, Mass.  
A-W—Auto Wheel Co., Lansing, Mich.  
Bet—Bethlehem Steel Co., Bethlehem, Pa.  
Bim—Bimel Spoke & Auto Wheel Co., Portland, Ind.  
Bud—Budd Wheel Co., Phila., Pa.  
Cla—Clark Equip. Co., Buchanan, Mich.  
Day—Dayton Automotive Wheel Co., Dayton, Ohio.  
Dis—Motor Wheel Corp., Lansing, Mich.  
Hay—Hayes Wheel Co., Jackson, Mich.  
Hoo—Hoopes, Bro. & Darlington, Inc., West Chester, Pa.  
Ind—Indestructible Wheel Co., Lebanon, Ind.  
Int—Interstate Foundry Co., Chicago, Ill.  
Jon—Phineas, Jones & Co., Hillside, N. J.  
Kel—Kelsey Wheel Co., Detroit, Mich.  
M-M—Michigan Malleable Iron Co., Detroit.  
Mot—Motor Wheel Corp., Lansing, Mich.  
Mun—Muncie Wheel Co., Muncie, Ind.  
Nor—Northern Wheel Corp., Alma, Mich.  
Pru—Prudden Wheel Co., Lansing, Mich.  
Roy—Royer Wheel Co., Aurora, Ind.  
Sch—St. Marys Wheel & Spoke Co., St. Marys, O.  
Smi—Smith Wheel, Inc., Syracuse, N. Y.  
StM—St. Marys Wheel Co., St. Marys, O.  
Std—Standard Wheel Co., Terre Haute, Ind.  
Van—Van Wheel Corp., Onelda, N. Y.  
Way—Wayne Wheel Co., Newark, N. Y.

### Rim Equipment:

Fir—Firestone Steel Prod. Co., Akron, O.  
Gdy—Goodyear Tire & Rub. Co., Akron, O.  
Hay—Hayes Wheel Co., Jackson, Mich.  
Jax—Jaxon Steel Prod. Co., Jackson, Mich.  
Kel—Kelsey Wheel Co., Detroit, Mich.  
Non—None Supplied.



# Motor Bus Chassis Designed Exclusively for Passenger Transportation

For Other Chassis Which Are Recommended and Adaptable for Bus Use, See Models Having Sign (\$) in the "COMMERCIAL CAR SPECIFICATIONS"

MAKE AND MODEL	GEN. CAP.				ENGINE		ELECTRICAL SYSTEM				TRANSMISSION			REAR AXLE		FRONT AXLE	TIRES AND WHEELS		DIMENSIONS (In.)											
	Seating Capacity	Chassis Only	Chassis with Body	Recommended Body Allowance	Wheelbase	Make and Model	Number of Cylinders, Bore and Stroke	Radiator Make	Carburetor Make	Ignition System Make	Battery		Normal S eed	CLUTCH	Make and Model	GEARSET	Universal Make	TIRES (In.)		Turning Radius (Ft.)	Floor Height	Length	Width							
											Voltage and Amp. Hr. Cap.	Make						Front	Rear											
																								Generator and Starter Make	Type and Make	Make and Model	Number of Forward Speeds	Final Drivs	Brake Location	Make and Model
TIRES—Make																														
Ace C.....	30	6500	11500	5000	204	Con 7T	6-4 1/2 x 5 1/2	Own	Zen	Eis	Rem	USL	6-110	35	6.0	D. B-L	B-L 60	4 U-M	Tim 6516	W	A	Tim 1550	Ros	36x6	36x6 1/2	Day	34	27 1/2	316	90
Acme 116.....	18	4910	8460	180	180	Con 6B	6-3 3/4 x 5	Per	Zen	Eis	Bos	USL	6-133	40	6.0	D. B-L	B-L 51	4 Blo	Cla B6000	B	A	Tim 1550	Ros	32x6	32x6 1/2	Mot	27 1/2	21 1/2	259	83 3/4
Acme 121.....	22	5100	9280	205	205	Con 7R	6-4 1/2 x 5 1/2	Per	Zen	Eis	Bos	USL	6-133	45	6.0	D. B-L	B-L 55	4 Blo	Cla B720	B	A	Tim 1550	Ros	34x7	34x7 1/2	Mot	32	27 1/2	276	83 3/4
American-Lafayette.....	22	5100	9280	205	205	Own 4R	6-4 1/2 x 6	Own	Zen	Eis	N-E	W	12-140	27	6.0	D. Own	Own	4 Spi	Own 4R	W	A	Tim 1550	Ros	34x7	34x7 1/2	Bud	32	27	268	80 3/4
American-Lafayette.....	22	5100	9280	205	205	Own 4R	6-4 1/2 x 6	Own	Zen	Eis	N-E	W	12-140	27	6.0	D. Own	Own	4 Spi	Own 4R	W	A	Tim 1550	Ros	34x7	34x7 1/2	Bud	32	27	268	80 3/4
Brookway EB.....	18	3850	6350	2500	153	Wis 5U	4-4 x 5	G&O	Zen	Eis	L-N	Exi	12-220	42	10.0	D. B-L	B-L 30	3 Spi	Col 53000	B	A	Col 5200	Gem	32x6	32x6 1/2	Van	28	29 1/2	243	64
Brookway EB.....	18	4000	6400	2500	153	Wis 6Y	6-3 3/4 x 5	G&O	Zen	Eis	L-N	Exi	12-220	45	11.0	D. B-L	B-L 30	3 Spi	Col 53000	B	A	Col 5250	Gem	30x5	30x5 1/2	Bud	30	29 1/2	243	64
Brookway H.....	22	4975	7075	3000	164	Con 6B	6-3 3/4 x 5	G&O	Zen	Eis	L-N	Exi	12-220	45	8.5	D. B-L	B-L 30	4 Spi	Wis 6730	B	A	Shu 3550	Ros	32x6	32x6 1/2	Bud	30	29 1/2	256	74
Brookway J.....	25	6585	10585	4000	185	Con 6B	6-3 3/4 x 5	G&O	Zen	Eis	L-N	Exi	12-220	45	6.5	D. B-L	B-L 55	4 Spi	Tim 6516	W	A	Shu 610B	Ros	36x6	36x6 1/2	Bud	32	27 1/2	295 1/2	90
Brookway J.....	29	7200	11000	5000	221	Wis 6H	6-4 1/2 x 5 1/2	G&O	Zen	Eis	L-N	Exi	12-220	45	6.5	D. B-L	B-L 55	4 Spi	Tim 6522	W	A	She D445	Ros	34x7	34x7 1/2	Bud	32	26	344	90
Clinton 65B.....	30	5925	8700	2725	184	Bud EBU	4-4 1/2 x 5 1/2	Own	Zen	Eis	Bos	Pol	6-180	30	3.0	D. B-L	B-L 55	4 M-E	Tim 6566	W	A	Tim 1544B	Ros	36x6	36x6 1/2	Bud	37	30	270	75 1/2
Clinton 65B.....	35	6000	9600	3000	220	Bud YBU	4-4 1/2 x 5 1/2	Own	Zen	Eis	Bos	Pol	6-180	35	3.0	D. B-L	B-L 55	4 M-E	Tim 6516	W	A	Tim 1550	Ros	36x6	36x6 1/2	Bud	40	26	286	90
Commerce 60.....	25	5850	10000	3500	229	Con 6B	6-3 3/4 x 5	Own	Zen	Eis	Bos	W	6-153	35	7.0	D. B-L	B-L 60H	4 Blo	Tim 6516	W	A	Tim 1550	Ros	36x6	36x6 1/2	Bud	20 1/2	20 1/2	330	90
Commerce 65.....	29	8220	12000	3500	242	Con 14H	6-4 1/2 x 5 1/2	Fed	Zen	Eis	Bos	W	12-153	35	5.0	D. B-L	B-L 60H	4 Blo	Tim 6516	W	A	Tim 1550	Ros	36x6	36x6 1/2	Bud	20 1/2	20 1/2	343	90
Concord.....	25	5200	7700	2500	163	Bud KBU	4-4 x 5 1/2	Bus	Zen	Eis	Bos	W	12-240	42	6.5	D. B-L	B-L 51	4 Spi	Tim 6370S	W	A	Shu 5550B	Ros	36x6	36x6 1/2	Bud	28	28	340	88
Day-Elder 20.....	25	5600	8600	3000	180	Con 6B	6-3 3/4 x 5	Bus	Zen	Eis	Bos	W	6-153	35	7.0	D. B-L	B-L 51	4 Spi	Tim 6462	W	A	Tim 1526	Gem	36x6	36x6 1/2	Van	30	32	246 1/2	70 1/2
Day-Elder 25.....	30	7000	11000	4000	196	Bud Bus	6-4 x 5 1/2	Bus	Zen	Eis	L-N	W	6-153	35	7.0	D. B-L	B-L 51	4 Spi	Huck 85	W	A	She D445	Gem	36x6	36x6 1/2	Bud	27	25	293	75 1/2
Deaby 36.....	18	4200	7000	3500	216	Con 6B	6-3 3/4 x 5	Lon	Zen	Eis	RBo	W	12-153	30	5.0	D. Ful	Ful GU14	4 Spi	Cla 3D	W	A	She D445	Gem	36x6	36x6 1/2	Bud	34	21	294	91
Dorris 34.....	25	6475	11000	4000	224	Own	6-4 1/2 x 5 1/2	Mod	Zen	Eis	RBo	W	6-130	40	5.0	D. Ful	B-L 51	4 Spi	Wis DR	I	A	Tim 610B	Ros	32x6	32x6 1/2	Bud	32	23 1/2	264	84
Dorris L6 (gas elec.).....	29	7875	12875	4500	224	Own	6-4 x 5	Mod	Zen	Eis	N-E	W	12-133	45	5.0	D. B-L	B-L 55	4 Spi	Wis DR	I	A	Tim 1560	Ros	36x6	36x6 1/2	Bud	36	24	309	90
Fagel Parlor Car.....	22	6770	10550	230	180	Has 75	6-4 1/2 x 5 1/2	Lon	Zen	Eis	Del	USL	12-118	35	7.0	D. B-L	B-L 55	4 Spi	Tim 65190	W	A	Tim 1550	Ros	36x6	36x6 1/2	Bud	38 1/2	20 1/2	342	89
Fagel Street Car.....	25	5480	10000	3500	218	Has 50	6-3 3/4 x 5	Lon	Zen	Eis	Del	USL	12-118	35	7.0	D. B-L	B-L 55	4 Spi	Tim 65190	W	A	Tim 1524	Ros	36x6	36x6 1/2	Bud	38	22 1/2	339	99
Federal.....	25	5850	10000	3500	218	Has 50	6-3 3/4 x 5	Lon	Zen	Eis	Del	USL	12-118	35	7.0	D. B-L	B-L 55	4 Spi	Tim 65190	W	A	Tim 1524	Ros	36x6	36x6 1/2	Bud	38	20	366 1/2	99
Fifth Ave. J.....	25	6850	12040	4190	174	Yel EZ	4-4 x 6	Own	Zen	Eis	N-E	W	12-90	27	5.0	P. Own	Own L	4 Sue	Tim 6412	W	B	Tim 1523	Ros	36x6	36x6 1/2	Bud	33	25	277	87 1/2
Fifth Ave. L.....	25	5850	12040	4190	174	Yel EZ	4-4 x 6	Own	Zen	Eis	N-E	W	12-90	27	5.0	P. Own	Own L	4 Sue	Tim 6412	W	B	Tim 1523	Ros	36x6	36x6 1/2	Bud	33	25	296	87 1/2
Garford 51D.....	29	6500	9900	3400	187	Bud Bus	6-4 x 5 1/2	Own	Zen	Eis	Rem	USL	6-133	35	5.0	D. Own	Own 51D	8 Spi	Tim 6516	W	A	Tim 1550	Ros	36x6	36x6 1/2	...	30	28 1/2	295	91
Garford KB.....	17	3600	6000	2400	180	Wis Y	6-3 3/4 x 5	Own	Zen	Eis	Rem	USL	6-133	35	7.3	D. B-L	B-L 51	3 U-M	Tim 5516H	W	A	Tim 1550	Ros	32x6	32x6	Day	28	23	285	84
Garford KB.....	17	3600	6000	2400	180	Wis Y	6-3 3/4 x 5	Own	Zen	Eis	Rem	USL	6-133	35	7.3	D. B-L	B-L 51	3 U-M	Tim 5516H	W	A	Tim 1550	Ros	32x6	32x6	Day	28	23	285	84
Garford KB.....	17	3600	6000	2400	180	Wis Y	6-3 3/4 x 5	Own	Zen	Eis	Rem	USL	6-133	35	7.3	D. B-L	B-L 51	3 U-M	Tim 5516H	W	A	Tim 1550	Ros	32x6	32x6	Day	28	23	285	84
Gary 45B.....	40	29	6900	11300	4400	220	Wis Z	Lon	Zen	Eis	Rem	USL	6-133	35	7.0	D. B-L	B-L 55	4 Spi	Tim 6516	W	A	Tim 1550	Ros	36x6	36x6 1/2	Bud	35	23	298	91
Goffredson 50B-29.....	29	2285	3600	1200	180	Bud GL6	6-4 1/2 x 5	McC	Zen	Eis	Rem	USL	6-133	35	7.0	D. B-L	B-L 55	4 Spi	Tim 6516	W	A	Tim 1550	Ros	36x6	36x6 1/2	Bud	35	23	298	91
Goffredson 50B-29.....	29	2285	3600	1200	180	Bud GL6	6-4 1/2 x 5	McC	Zen	Eis	Rem	USL	6-133	35	7.0	D. B-L	B-L 55	4 Spi	Tim 6516	W	A	Tim 1550	Ros	36x6	36x6 1/2	Bud	35	23	298	91
Goffredson 50B-29.....	29	2285	3600	1200	180	Bud GL6	6-4 1/2 x 5	McC	Zen	Eis	Rem	USL	6-133	35	7.0	D. B-L	B-L 55	4 Spi	Tim 6516	W	A	Tim 1550	Ros	36x6	36x6 1/2	Bud	35	23	298	91
Goffredson 50B-29.....	29	2285	3600	1200	180	Bud GL6	6-4 1/2 x 5	McC	Zen	Eis	Rem	USL	6-133	35	7.0	D. B-L	B-L 55	4 Spi	Tim 6516	W	A	Tim 1550	Ros	36x6	36x6 1/2	Bud	35	23	298	91
Graham Bros. YB.....	21	3700	6200	2500	158	Dodge	6-3 3/4 x 4 1/2	Own	Zen	Eis	N-E	W	12-40	30	4.0	D. Own	Own	3 Spi	Tim 6521	W	A	Tim 1560	Ros	36x6	36x6 1/2	Bud	29 1/2	26	248	86
Graham Bros. YB.....	21	3700	6200	2500	158	Dodge	6-3 3/4 x 4 1/2	Own	Zen	Eis	N-E	W	12-40	30	4.0	D. Own	Own	3 Spi	Tim 6521	W	A	Tim 1560	Ros	36x6	36x6 1/2	Bud	29 1/2	26	248	86
Graham Bros. YB.....	21	3700	6200	2500	158	Dodge	6-3 3/4 x 4 1/2	Own	Zen	Eis	N-E	W	12-40	30	4.0	D. Own	Own	3 Spi	Tim 6521	W	A	Tim 1560	Ros	36x6	36x6 1/2	Bud	29 1/2	26	248	86
Graham Bros. YB.....	21	3700	6200	2500	158	Dodge	6-3 3/4 x 4 1/2	Own	Zen	Eis	N-E	W	12-40	30	4.0	D. Own	Own	3 Spi	Tim 6521	W	A	Tim 1560	Ros	36x6	36x6 1/2	Bud	29 1/2	26	248	86
Graham Bros. YB.....	21	3700	6200	2500	158	Dodge	6-3 3/4 x 4 1/2	Own	Zen	Eis	N-E	W	12-40	30	4.0	D. Own	Own	3 Spi	Tim 6521	W	A	Tim 1560	Ros	36x6	36x6 1/2	Bud	29 1/2	26	248	86
Graham Bros. YB.....	21	3700	6200	2500	158																									

[illegible]

## Merchants' Association Magazine Displaced by "Service Bulletins"

The Merchants' Association of New York has discontinued its magazine "Greater New York" and substituted for it a bulletin service, which, although costing more to produce, brings all the worth while material to its reader members in the briefest possible form. Everything is typewritten in telegraphic form, and only such material is given that is of service to the membership. The bulletin is a loose leaf proposition so that items of interest can be readily detached and saved for reference.

Any lengthy subjects are included as inserts so they will not take away from the brevity of the main service and can be read or not as interest dictates. The bulletins are pocket size. Each bulletin sheet has a note appended to it stating that "detailed reports on any of the subjects digested can be secured by application to the association's secretary." The new bulletin service is a complete answer to the objection of business papers in general that associations put out official publications soliciting advertising largely on an improper basis, and secure entry to the Post Office as second-class mail under a subterfuge.

## King Offers \$200 in Prizes

Two hundred dollars is being offered by King Quality Products, Inc., of Buffalo, N. Y., for the best names offered for the new trade character shown in its advertisement in this issue.

The trade character whom you are invited by the King Company to name will be charged with the responsibility of showing some of the inside stuff relating to the use of standard brand parts, right in the garage and repair shop.

The name requested is to suggest—accuracy, quality, uniformity, or the fact that standard brand parts lead the way to more satisfactory and profitable shop operations.

The contest closes March 1st and suggestions are to be mailed on the coupon torn from the company's advertisement appearing in this magazine.

## Star Salesmen Guests of W. C. White

Eighty-seven star salesmen of White trucks and buses from all parts of the United States were the guests of President Walter C. White, of the White Company, in Cleveland, on February 8 and 9. The men are members of the White Club, an honorary organization composed of salesmen whose average sales for nine months equalled or exceeded the standard set for membership.

Fitz Gibbon & Crisp, Inc., manufacturer of bodies, recently opened a New York sales office and service station at 619-635 W. 23d St. Mr. William G. Wood has been appointed New York representative, with headquarters at this address.



## Electric Commercial Cars

Name and Model Number	Total Weight Resting on Four Tires	Chassis Weight—Exclusive of Battery	Minimum Load Capacity	Maximum Load Capacity	Chassis Price	Maximum Speed	Location of Battery	Mileage Per Charge	Motor	Controller	Speeds Forward	Drive	Rear Axle	Springs	Front Tires	Rear Tires	Steering Gear	Wheelbase	Per Cent of Weight on Rear Wheels
Autocar E 1F.....	10000	3650	.....	.....	2400	.....	A	.....	G-E	G-E	5	R	Own	Row	34x4	34x5	Ross	107	60
Autocar E 2D.....	15000	4300	.....	.....	2800	.....	A	.....	G-E	G-E	5	R	Own	Row	34x5	34x6	Ross	120	60
Autocar E 3H.....	18000	4900	.....	.....	3200	.....	A	.....	G-E	G-E	5	R	Own	Row	34x5	36x8	Ross	131	60
Autocar E 4Y.....	26000	6800	.....	.....	4000	.....	A	.....	G-E	G-E	5	R	Own	Row	34x6	36x6	Ross	138	60
Autocar E 5M.....	30000	7200	.....	.....	4300	.....	A	.....	G-E	G-E	5	R	Own	Row	36x7	36x7	Ross	138	60
C-T H-1.....	5600	2400	.....	.....	.....	14	A	55	G-E	Own	4	Own	F	Shel	36x3½	36x4	W	108	67
C-T F-1.5.....	6600	2800	.....	.....	.....	14	A	60	G-E	Own	4	Own	F	Shel	36x3½	36x4	W	94	67
C-T H-1.5.....	6600	2800	.....	.....	.....	14	A	60	G-E	Own	4	Own	F	Shel	36x3½	36x4	W	116	67
C-T F-2.....	8000	3100	.....	.....	.....	14	A	50	G-E	Own	4	Own	F	Shel	36x3½	36x5	W	96	67
C-T H-2.....	8000	3100	.....	.....	.....	14	A	50	G-E	Own	4	Own	F	Shel	36x3½	36x5	W	124	67
C-T F-4.....	11950	4200	.....	.....	.....	12	A	50	G-E	Own	4	Own	F	Shel	36x4	36x4½	W	116	67
C-T A-7.....	17700	5800	.....	.....	.....	11	A	45	G-E	Own	4	Own	I	Shel	36x6	36x4½	W	122	58
C-T F-7.....	17900	6000	.....	.....	.....	11	A	45	G-E	Own	4	Own	F	Shel	36x5	36x5½	W	136	67
C-T A-10.....	22250	6500	.....	.....	.....	10	A	45	G-E	Own	4	Own	I	Shel	36x7	36x5½	W	132	58
C-T F-10.....	22750	7000	.....	.....	.....	10	A	45	G-E	Own	4	Own	F	Shel	36x6	36x6½	W	152	67
Electruck 48.....	8700	3600	2000	3000	2000	15	A	50	G-E	G-E	4	C	Own	Eat	34x4	34x5	Gem	112	60
Electruck 39.....	10400	4200	4000	5000	2500	15	A	50	G-E	G-E	4	C	Own	Eat	34x4	34x6	Gem	122	60
Electruck 27.....	32000	12200	15000	20000	6000	12	A	50	G-E	Own	5	C	Own	Eat	36x7	40x14	Gem	168	70
Lansden Century.....	1700	1250	1600	1500	1500	15	S	60	G-E	Own	4	R	Flot	SP	32x4½	32x4½	Ross	108	50
Lansden Century.....	1950	2000	1850	1500	1500	15	S	60	G-E	Own	4	R	Flot	SP	33x5	33x5	Ross	112	50
Lansden Marathon.....	2900	2000	1850	1400	1400	14	A	50	G-E	Own	4	C	D	SP	36x3½	36x4	Bay	108	60
Lansden Marathon.....	4400	4000	2250	1300	1300	13	A	50	G-E	Own	4	C	D	SP	36x4	36x3½	Bay	120	60
Lansden Marathon.....	5700	7000	2950	1100	1100	11	A	45	G-E	Own	4	C	D	SP	36x5	36x5½	Bay	133	60
Lansden Marathon.....	7500	10000	3350	1000	1000	10	A	40	G-E	Own	4	C	D	SP	36x6	36x6½	Bay	146	60
O. B-B.....	.....	.....	.....	.....	.....	13	.....	.....	G-E	Own	.....	C	D	.....	36x4	36x3½	Own	107	.....
O. B-C.....	.....	.....	.....	.....	.....	11	.....	.....	G-E	Own	.....	C	D	.....	36x5	36x4	Own	135	.....
O. B-D.....	.....	.....	.....	.....	.....	10	.....	.....	G-E	Own	.....	C	D	.....	36x6	36x5	Own	143	.....
Steinmetz 15.....	6800	2200	1000	2250	1800	18	H&S	60	Own	Own	4	R	Own	Lig	32x4½	32x4½	Lav	114	55
Walker 12.....	1900	1000	.....	.....	.....	15	H&S	50	G-E	Own	4	.....	Tim	Det	32x3	32x3½	Ross	104	66
Walker 15.....	2800	1500	.....	.....	.....	14	A	50	West	West	5	Own	Own	Math	34x3	36x3½	Ross	94	66
Walker 22.....	3000	2000	.....	.....	.....	13	A	50	West	West	5	Own	Own	Math	34x3½	36x4	Ross	101	66
Walker 42.....	4200	4000	.....	.....	.....	13	A	50	West	West	5	Own	Own	Math	36x4	36x6	Ross	114	66
Walker P.....	6000	7000	.....	.....	.....	11	A	40	West	West	5	Own	Own	Math	36x5	38x5½	Ross	131	66
Walker N.....	6700	10000	.....	.....	.....	10	A	40	West	West	5	Own	Own	Math	36x6	38x6½	Ross	141	66
Walter HD.....	6800	2300	2000	2200	1600	16	A	60	Diehl	G-E	5	B	.....	.....	32x3½	32x4	Ross	98	60
Walter EN.....	13200	4400	5000	3100	1500	15	A	50	G-E	G-E	5	Own	D	.....	36x4	36x7	Gem	114	60
Walter EL.....	16800	5000	7000	3700	1300	13½	A	50	G-E	G-E	5	Own	D	.....	36x5	36x4	Gem	132	60
Walter ES.....	23600	7200	11000	4500	1200	12	A	50	G-E	G-E	5	Own	D	.....	36x6	40x6	Ross	150	70
Walter ER.....	28400	7500	15000	4800	1100	11	A	50	G-E	G-E	5	Own	D	.....	36x7	40x7	Ross	150	70
Ward A211.....	4650	1800	600	1150	.....	15	S	75	G-E	Own	4	W	Shel	Shel	32x3	32x3½	Own	88	56
Ward B-222.....	6000	2300	1020	1700	.....	14	S	84	G-E	Own	4	W	Shel	Shel	32x3½	32x4	Own	91	62
Ward C-211.....	8000	2670	2170	2880	.....	13	S	65	G-E	Own	4	W	Shel	Shel	32x3½	34x5	Own	96	64
Ward E-211.....	12000	3570	4290	5430	.....	12½	S	56½	G-E	Own	4	W	Shel	Shel	34x4	36x6	Own	108	65
Ward G-211.....	16000	4500	6180	7760	.....	11	S	44	G-E	Own	5	W	Shel	Shel	36x5	36x8	Own	120	68
Ward J-211.....	22500	6630	9500	11200	.....	10	S	39½	G-E	Own	5	W	Shel	Shel	36x6	36x10	Own	136	70
Ward M-211.....	30000	8430	13780	15920	.....	9	S	36	G-E	Own	5	W	Shel	Shel	36x7	36x7½	Own	152	71

NOTE: Battery Equipment on all above makes is at the option of the purchaser. Battery Location Abbreviations: A-amidships; H-under hood; and S-under seat

## Mississippi School Buses

(Continued from page 15)

the school center. We help the farmer buy these trucks by going their security at the banks. They pay for the trucks with their monthly checks. These checks are issued, of course, by the school board. The farmers utilize the trucks in the summer for farm transportation.

"While exact knowledge as to the cost of operation is not known I believe that they are operated for less than \$100 per month, for we always have more applicants to drive than we have trucks.

"I would not advise the board to maintain its own fleet as it has been my experience that no man will take care of the other fellow's car or truck as he will his own.

"The board makes arrangement to get repair service for the owners at a little less cost than could ordinarily be obtained. Some trucks have been in operation for five years and are still in good repair.

"In securing drivers we try to employ the very best man that we can employ who lives at the end of the route. By giving a contract to a responsible man, living at the end of the route, we make it possible for the driver to realize more from his own time than he could if he had

to travel several miles in the morning before beginning his route."

While the operation of the fleets of the various districts are fundamentally similar there are some differences. For example the Parish of Beauregard operates vehicles of a more expensive type than those employed by the Webster Parish.

In commenting on the system used in Beauregard, Prof. D. G. Lunsford, parish superintendent of education, said:

"Beauregard Parish has, perhaps, the best equipped and organized school transfer system in the state, considered from a parish-wide standpoint. It has:

"1. Seven transfer centers, each center a high school. The buildings and equipment in each are modern, teaching force and methods in accordance with the state high school requirements, all buildings electrically lighted and supplied with waterworks, individual plants being employed where city power is not available.

"2. Forty school buses of uniform type, and in three sizes, convey to these schools 1500 children.

"3. Contracts are made with the drivers who own and operate the buses, the type and size of bus being specified in each contract.

"4. Buses are of the closed type.

"5. An annual institute of bus drivers is held at the opening of the year.

"In planning for the equipment for the present system, it became evident that drivers did not realize enough profit out of a one-year contract to justify the purchase of the cars. The school board proposed to make a contract for two nine-months terms, and specified that the entire equipment be new.

"Buses equipped, cost the driver from \$1,000 to \$1,450 carrying charges, of course, to be added where buses were bought on time, which was usually the case, the period of payment extending over eighteen months of actual service.

"This type of school transportation is proving quite popular with the patrons, as the children are transported in comfort and, being in closed cars, are gotten to the school without exposure to the weather. The per capita cost of transportation has not increased because of this type of service, since the two-year contract has proven attractive to the operators. The monthly payments on an improved bus, extended over eighteen months, average smaller than those required when ordinary truck is bought on the basis of a nine-months contract. The cost of operation of these buses is about \$6,000 per month, or at an average cost of \$150. In fact, the per capita cost to date this year has not been quite so large as in previous years.

## A Million Turnover

(Continued from page 13)

also the accessory salesroom, was given unusual attention. In the floor plan it will be noted that this is so positioned as to be accessible from the street directly. This was done so it would be possible to keep this open for business, even when other departments may be closed.

It will be noted that the service manager has direct connection with it, a door and window in the wall between affording him constant view of or access to it. There is as well a door and a window at the rear portion, off the receiving and inspection room. This window permits the shopmen in the repair shop getting any parts needed, on requisition, of course, by walking the four or five feet from their department to this window.

The service manager is W. P. Mathews, formerly assistant service manager for E. C. Williamson Motor Co., Jacksonville, Fla., Dodge and Graham dealer there. He runs the shop on a flat rate basis. In it, too, are embodied a number of up-to-date features which keep the men clean, neat, satisfied; keep the shop looking well at all times; keep the work moving through as fast as is consistent with good, careful workmanship, etc.

Mention was made of profits on used trucks. Baggs has his own appraisal methods, and his men so organized and educated that they go over trucks to be turned in on a trade deal from the point of view of resale. They inspect and test out these trucks with the thought constantly in mind, "How much money must be spent on this boiler to put it in first-class shape so we can guarantee it, and when that is done, how much can we be sure of getting for it?"

Instead of working forward from what they "guess" it will bring, they work

backward from a normal reasonable selling price, then deduct the carefully estimated and checked expenditures on it, plus a margin for overhead and to cover unexpected expense, to arrive at an allowance figure.

The men who do this keep in close touch with shop work, have access to all shop figures and costs, consequently they know almost to a penny what certain work will cost. Through this double contact with the used trucks and with the renewal work on them, they become expert at appraising trucks, and this work moves forward very swiftly, almost as fast as it can be told. And the net result is that every used truck taken in shows a profit when subsequently sold.

In many other ways, Baggs has his business so organized and his men so educated and trained that there are few of the usual leaks, that is to say no normal small losses to eat into the profits. Used cars show a profit; used trucks show a profit; new cars and trucks, of course, show a profit; the service and repair work is managed to show a profit, too, as are accessory sales. As a result of all departments being managed at a profit, the business as a whole shows what is probably higher than usual profit percentage for this kind of an all-around business.

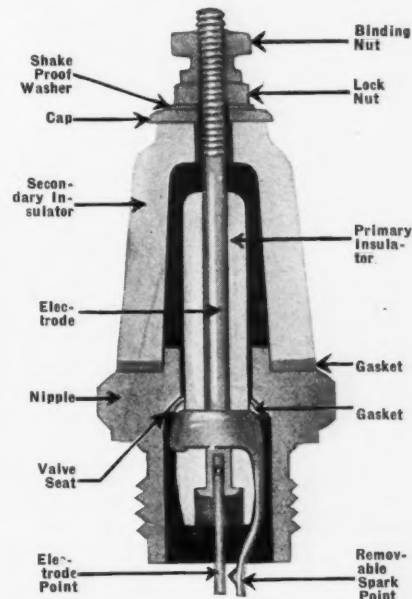
And he modestly says there is nothing wonderful about that, just plain ordinary business sense. Anyhow, that is how he built up a million-dollar business in four years.

## New Schacht Service Station

The G. A. Schacht Motor Truck Co., Cincinnati, recently completed its new service and sales plant at Van Dam, Rockdale and Nelson Sts., Long Island City. The building is of concrete and brick construction and contains 48,000 sq. ft. of floor space.

## The White Ace Spark Plug

This is a heavy duty plug designed particularly for truck and bus service. In it are incorporated a number of meritorious features which adapt it especially for the rugged service which the commercial vehicle demands. It is manufactured by the Automotive Appliance Co., 1712-16 Ludlow St., Philadelphia.



Heavy Duty Plug for buses and trucks

Attention is called to the sectional view which clearly shows the double insulation, removable spark points, and the construction which indicates that this plug can be easily taken apart and cleaned by using only a pair of pliers.

Any part of the plug can be replaced, as parts of the plug can be purchased separately. The secondary insulation of this plug makes it positively waterproof and leak proof. It is made in all standard sizes and lists at \$1.

## North East Managers Gathered in Session

The branch managers of North East Service, Inc., recently met at the general offices of the company at Rochester, N. Y. They convened to discuss North East sales and service policies with particular reference to the Northeaster, the new magnetic horn recently put on the market by the North East Electric Co.

## Gilmer Buys Michigan Factory

The L. H. Gilmer Co., of Philadelphia, manufacturers of Sealdedge, fan belts and woven products, announces that it has acquired a factory at Wayne, Mich., a suburb of Detroit, and within trucking distance of all automotive plants in the Michigan territory. This new factory, which is just starting production, has been equipped for the manufacture of Sealdedge, the new Gilmer antisqueak, and similar goods for use in the automotive industry.

Dodge Brothers		NORFLEET BAGGS, Inc		Graham Brothers	
Owner's Name	Address	Motor No.	Speedometer Reading	Date	
Type	Car No.	Operator's Name			
ITEMS MARKED "O" FOUND SATISFACTORY. ITEMS MARKED "A" ADJUSTED. ITEMS MARKED "X" NEED SHOP ATTENTION.					
PARTS		ELECTRICAL SYSTEM		PARTS	
REMARKS		REMARKS		REMARKS	
<div style="display: flex; justify-content: space-between;"> <div> <p><b>USED CAR RECORD</b></p> <p>Received from _____ Date _____</p> <p>Sold to _____ Date _____</p> <p>Take in by _____</p> <p>Make _____</p> <p>Car No. _____</p> <p>Motor No. _____</p> <p>Type _____</p> <p>INSURANCE _____</p> <p>Thrift _____</p> <p>OUTSIDE WORK _____</p> <p>Paint _____</p> <p>Top and Curtains _____</p> <p>Tires and Tubes _____</p> <p>Batteries _____</p> <p>Upholstery _____</p> <p>Minor Repairs _____</p> <p>Total _____</p> </div> <div> <p>Used Car Purchase _____ Date _____</p> <p>R/O No. _____</p> <p>TERMS _____</p> <p>Cash _____</p> <p>Used Car _____</p> <p>Notes _____</p> <p>Side Price _____</p> <p>Cost Price _____</p> <p>Profit _____</p> <p>Loss _____</p> <p>Per Cent _____</p> </div> </div>					
FUEL SYSTEM		BRAKES		STEERING	
REMARKS		REMARKS		REMARKS	
Inspector _____					

Norfleet-Baggs, use forms as they should be used



# The World's *third* Largest Builder of Trucks

*for Economical Transportation*



Twelve great factories! Manufacturing facilities and engineering equipment of a quality unsurpassed in the automobile industry! Two basic models with a wide variety of attractive bodies—selling at strikingly low prices! Durable, powerful chassis design especially developed to give reliable, economical haulage under all conditions.

Over 6,000 dealers and service stations stocked with parts ready to serve you promptly at low cost! The most economical time payment plan in existence! That's why Chevrolet ranks as the third largest builder of motor trucks in the world.

CHEVROLET MOTOR CO., DETROIT, MICH.  
*Division of General Motors Corporation*

One Ton Truck with Panel Body



One Ton Truck  
Chassis

\$550

*f.o.b. Flint, Michigan*

QUALITY AT LOW COST



# EDITORIALS



## Vocational Selling

VOCATIONAL selling to many dealers sounds like some high-pressure selling scheme which can only be indulged in by the big ones in the industry. Other dealers consider it as a waste of time or something which requires lots of clerical work from which the clerks derive the most benefit. The fact of the matter is that vocational selling can be made as simple or elaborate a matter as the user wants it to be. Vocational selling is nothing new to many of the larger truck manufacturers. It requires no superhuman effort to sell trucks by this method. All it really means is the difference between analyzing the buyer's requirements or just selling him what you think he needs.

The elaborateness of the system depends entirely upon the size of the organization. Naturally, the factory that produces thousands of trucks per year can afford to carry on a factory-to-dealer system by keeping the dealer up-to-date on any information which the factory has compiled on any business. On the other hand the dealer must co-operate with the factory by sending in any valuable information gathered in the field. It is simply a case of passing around information that is valuable to all concerned.

But every dealer can independently organize his own vocational system by simply recording all the facts accompanying the interviews and sales that his men make, also filing any pertinent data that may come to his attention. One file drawer in the dealer's office, tabulated for about thirty-five lines of industry, in which all information is systematically filed, will be of great help to the salesman and especially the young salesman.

Each salesman can be furnished with a typewritten copy of any information that has been reported by any of the men. There is just one condition which must be observed by those adopting the vocational selling method which is, that no one salesman can hope to become proficient in knowing every line of business. It is not possible for one man to study and become thoroughly familiar with thirty or forty lines of business. Therefore the dealer should encourage his men to specialize in a few indus-

tries and study them thoroughly. Such a man will make himself very valuable because his experience will give him *entree* with the buyer because he can talk his language. After all, the value of a vocational selling system becomes practically a personal proposition with the salesman. All the elaborateness of a system amounts to nothing provided the man who is on the firing line does not consistently make use of the material on hand, as well as study certain businesses thoroughly on his own initiative. All of which puts the success of the vocational selling method squarely up to the individual.

## What's a New Model?

QUITE a few new truck models are being announced. Some of these are undoubtedly justified because they have been designed to meet certain requirements or to round out the manufacturer's line. Other manufacturers are announcing new models, showing refinements in design, to take the place of some of their former models and which, incidentally, have made a good record for themselves. Now this is all good business and is probably justifiable from a manufacturing standpoint.

However, when a manufacturer announces a so-called new model, which in reality is nothing more than the old model with perhaps new tire sizes or a change in gear ratio or a different make of major unit, then we question the fact that it is a new model. The manufacturer who believes that it is a good way toward getting his product before the buyer by showing how many new models he is capable of producing each year is on the wrong track. New models should contain more than a slight change here and there. "New" models ought to be new models in the real sense of the word. Otherwise the manufacturer would do better to retain the former model, and designate the changes or "improvements" that have been made so that the truck buyer will not be confused with a lot of data which means nothing. Perhaps it would be better for the manufacturer to concentrate on the correct building of a few models with the object in view of reducing costs by better manufacturing and sales methods.



# News of the Trade

## New Trucks Make Debut at Chicago

New Pac-Age-Kar and Diamond-T Vehicle Introduced at Show

**SPONSORED** by the hotel management, a delivery truck show was opened February 1 at the Hotel Sherman to run concurrently with the automobile show. This occasion was taken advantage of by two manufacturers to introduce new products, one being the novel Pac-Age-Kar, built by the Pac-Age-Kar Corp., and the other a speed truck added to the Diamond-T line.

The Pac-Age-Kar engine and gearset are located at the rear end of the chassis, and the drive is taken to each rear wheel by a separate shaft and worm gear.

Designed to carry a 2,000 pound load, the body capacity is 216 cu. ft., measuring 6 ft. high inside. The overall height, however, has been kept down to 7 ft. 3 in., while the wheelbase is but 95 in. With the 10 hp. engine, gasoline and oil consumptions are guaranteed at 40 m.p.g. and 800 m.p.g., respectively. A two-speed forward and one reverse is incorporated, the normal operating speed being 15 m.p.h. Lacquered any color, the complete vehicle sells for \$850.

In designing the new model 76 fast 1-tonner, Diamond-T has not only made a

strong bid for light delivery business but has put into practice its new policy of designing a truck that is as pleasing to the eye as a private car. An aluminum radiator shell, with a cellular core, Biflex bumper and hollow-spoke steel wheels carrying 30 x 5 in. pneumatic tires give it a de luxe finish. The engine is a Hercules 4 x 5 in., with special aluminum connecting rods, although cast-iron pistons are retained.

Another model shown was the T4, a 1½-2ton job, which has been on the market about a month. This had a low-sided body and a 3-man totally enclosed cab. The third exhibit was a de luxe delivery vehicle, part of an order for Marshall Field's. This was mounted with a \$2000 panel body with enclosed driving compartment having half-doors.

Other delivery jobs shown were, Yellow-Knight 1-tonner, a Commerce super-7 open-side truck and a metal panel job. Ford screen and panel models, International 2000 lb. side-entrance milk truck and panel vehicles, the Stewart "Buddy," and a LeMoon 1-tonner. The latter company also exhibited the Milburn electric, which they manufacture. The Hendrickson company was represented by a 3-ton chassis, and American LaFrance by a model 2R 2½-ton chassis.

Although not represented at the show, the Republic Motor Truck Co. and the Federal Truck Co. had exhibits at the Congress Hotel, in the form of polished chassis.

## New Truck Tax Issue Stirs Fresh Fight

Makers, Dealers, Users, Defy "Penalty on One Branch of Transportation"

**THE** action of the Senate Finance Committee in restoring excise taxes on motor trucks, which the House had deleted, has aroused shippers, users, truck makers and dealers to exert every effort to fight it as a penalty on one branch of transportation.

It is regarded as possible that further reductions will be granted on passenger cars and trucks, now that the Senate Finance Committee has precipitated the issue. Opponents of the committee's action point out that motor trucks pay much higher taxes than passenger cars in many states, and state officers hold that, if commercial vehicles pay still more for the use of highways, then that is revenue which should go to the state, and it should not be seized for Federal purposes.

Among the groups on record as against the 2 per cent tax are the American Farm Bureau Federation, American Automobile Association, National Automobile Chamber of Commerce, National Automobile Dealers Association, Motor Truck Association of America, Rubber Association of America, Inc., and the Motor and Accessory Mfg. Ass'n.

### SHOWS

- Allentown, Penna., February 27 to March 6, 1926**—Annual show, Manhattan Auditorium, direction Lehigh Automobile Trade Ass'n.
- Atlantic City, N. J., May 17 to 21 1926**—Manufacturers exhibition and 49th convention of the National Electric Light Ass'n. Young's Million Dollar Pier.
- Boston, Mass., March 6 to 13, 1926**—24th annual show, Mechanics Bldg. (105,000 sq. ft.), direction Boston Automobile Dealers Ass'n, Inc., and the Boston Commercial Motor Vehicle Ass'n. Inc. Passenger cars, trucks, tractors and accessories. Chester I. Campbell, Mgr., 329 Park Square Bldg.
- Chattanooga, Tenn., February 15 to 20 1926**—2nd annual show, Memorial Auditorium, direction dealers of Chattanooga. Passenger cars, trucks and accessories. H. S. Smith, Chairman Show Committee, 528 Broad St.
- Detroit, Mich., March 29 to April 3, 1926**—Second annual motor bus show.
- Evansville, Ind., March 1 to 6, 1926**—14th annual show, direction Evansville Automobile Dealers Ass'n.
- Indianapolis, Ind., February 15 to 20, 1926**—15th annual show, Auto Show Bldg. (70,000 sq. ft.), direction of Indianapolis Auto Trade Ass'n. Passenger cars, trucks and accessories. John Orman, Mgr., 338 N. Delaware St.
- Kansas City, Mo., February 13 to 20, 1926**—20th annual show, American Royal Bldg. (250,000 sq. ft.), direction of Kansas City Motor Car Dealers Ass'n. Passenger cars, trucks, buses, tractors, accessories, aeroplanes and radio. Geo. A. Bond, Mgr., Firestone Bldg.
- Muskegon, Mich., February 15 to 20, 1926**—Annual exposition, Armory, direction Muskegon Automobile Business Ass'n.
- Omaha, Nebraska, February 22 to 27, 1926**—21st annual show. Municipal Auditorium. Passenger cars, trucks and accessories. A. E. Waugh, Show Mgr., 1814 Douglas St.

### Coming Events

- Portland, Maine, February 22 to 28, 1926**—14th annual show, Exposition Bldg., direction Portland Automobile Dealers Ass'n, Inc. Howard B. Chandler, Mgr.
- Saginaw, Mich., March 10 to 13, 1926**—Annual show, City Auditorium, direction Saginaw Auto Dealers Ass'n.
- St. Louis, Mo., February 22 to 27, 1926**—19th annual show, New Union Market Bldg. (100,000 sq. ft.), direction St. Louis Auto Dealers Ass'n. Passenger cars, trucks, accessories and boats. Robert E. Lee, Mgr., 3124 Locust St.
- San Bernardino, Cal., February 18 to 28, 1926**—16th annual show, National Orange Show Bldg. (28,000 sq. ft.), direction National Orange Show Ass'n. Passenger cars, trucks, tractors and accessories. R. H. Mack, Mgr., 215 Chamber of Commerce Bldg.
- Santa Monica, Cal., June 7 to 12, 1926**—Annual show and convention, direction United States Good Roads Ass'n. and the Bankhead National Highway Ass'n. J. A. Rountree, Dir. Gen'l. Maudmont, 3200 Cliff Rd., Birmingham, Ala.
- Wichita, Kansas, March 2 to 5, 1926**—1st annual Southwest Road Show and School, direction Wichita Thresher & Tractor Club, Inc., showing road building, maintaining machinery, accessories, materials and contractor's equipment.

### CONVENTIONS

- American Gear Manufacturers Association**—10th annual convention, May 13 to 15, 1926, Book-Cadillac Hotel, Detroit, Mich.
- Associated Advertising Clubs of the World**—Convention, June 20 to 25, 1926, Philadelphia, Pa. Carl Hunt, Mgr.
- Automotive Equipment Association**—Summer convention, June 14 to 19, 1926, Mount Royal Hotel, Montreal, Canada.
- Chamber of Commerce of the United States of America**—14th annual meeting, May 10 to 13, 1926, Washington, D. C.

- Illinois Automotive Trade Association**—Annual meeting, March 1 and 2, 1926, Abraham Lincoln Hotel, Springfield.
- National Automobile Chamber of Commerce**—Convention, May 18 and 19, 1926, Detroit.
- National Electric Light Association**—49th convention and manufacturers exhibition, May 17 to 21, 1926, Young's Million Dollar Pier, Atlantic City, N. J.
- North Carolina Automotive Trade Association**—Annual convention, March 17 to 18, 1926, Robert E. Lee Hotel, Winston-Salem.
- The Tire and Rim Association of America**—Annual meeting, April 14, 1926, Hollenden Hotel, Cleveland, Ohio.
- Texas Automotive Dealers Association**—Annual convention, May 12 and 13, 1926, Galvez Hotel, Galveston, Texas.
- United States Good Roads Association and the Bankhead National Highway Association**—Annual convention, June 7 to 12, 1926, Santa Monica, Cal. J. A. Rountree, Dir. Gen'l. Maudmont, 3200 Cliff Rd., Birmingham, Ala.

### S. A. E.

- New York City, February 18, 1926**—The Outlook for Bus Transportation in New York City, F. Van Z. Lane; Motor Bus operation—Cities—Dean J. Locke; High Speed Motor Bus Operation—Inter-City—Alexander Shapiro.
- Chicago, February 19, 1926**—Soothing the Internal Combustion Engine—Prof. Daniel Roesch.
- Milwaukee, Wis., March 3, 1926**—Laboratory Methods and Technique—F. Jehle.
- Detroit, March 11, 1926**—Speaker from the Bureau of Standards.
- Indiana Section, March 11, 1926**—Bus Development Meeting.

### COMING FEATURES OF CHILTON CLASS JOURNAL PUBLICATIONS

- May, Automobile Trade Journal**—Small Town Market Issue.
- May 7, Motor Age**—Sales and Service Reference Number.

## To Consolidate the Bus Industry

Permanent Bus Organization to be Formed. R. W. Sanborn Elected Chairman of Board

**P**RELIMINARY arrangements for permanent organization of the huge bus industry of the nation were completed at a meeting of the governing board of the bus division of the American Automobile Association. Ralph W. Sanborn, of Cleveland, was elected chairman of the board.

Practically the entire meeting was devoted to consideration of pending legislation for the regulation of buses operating in interstate commerce. The Cummins bill is now pending in the Senate, and Representative Parker, New York, chairman of the House Interstate and Foreign Commerce Committee, has introduced a similar bill in the House.

Both measures provide for control of interstate bus traffic by state public utilities commissions, under general direction of the Interstate Commerce Commission. The bills have the backing of the railroad interests. No date has been set for hearings on the bills in either branch of Congress, and there is little likelihood that they will be acted upon by the committees before the end of the month.

An official legislative committee was appointed by the bus division board to represent the bus interests in connection with the pending legislation. The new committee will replace the unofficial committee which represented the bus operators during early stages of the discussion. The committee is headed by S. A. Markel, of the Motor Bus Association of Virginia.

The board reviewed the Cummins bill and decided on several amendments to protect the interests of the bus operators. The amendments will be broadcast through state bus associations, and a conference will be held soon with railroad representatives to ascertain if an agreement can be reached before hearings begin at the Capitol.

## New Mergers for Car and Foundry Co.

In completion of various mergers and reorganizations, the American Car & Foundry Co. itself or through its subsidiaries will be a manufacturer not only of steam and electric railway equipment, but also of motor buses, engines, wheels, carburetors and motor vehicle unit parts. Rumors that the company is negotiating for control of a large truck producer could not be confirmed.

American Car & Foundry will control the J. G. Brill Corp., organized to acquire the J. G. Brill Co., Philadelphia. The American Car & Foundry Motors Co., which controls the Hall-Scott Motors Co. of California and the Fageol Motors Co. of Ohio, will be controlled by the J. G. Brill Corp.

American Car & Foundry, in addition to the ownership of the Carter Carburetor Co., has made a cooperative agreement with the Dayton Wire Wheel Co. for manufacture of the Dayton steel spoke wheel. American Car & Foundry is also making motor boats.

Common stockholders of American Car & Foundry will be offered the right to subscribe to new J. G. Brill Corp. stock on the basis of two shares of Class A and one of Class B for each eight shares of Car & Foundry common held at \$122 per unit.

## Vested With Authority Iowa Forms New Bus Rules

The Iowa State Railroad Commission has just put into force a number of new rules and regulations for the operation of motor buses on the highways of the state. The board has authority vested in them under a new law enacted at the last term of the legislature to formulate new rules as they see fit.

Among the new rules are the following:

**Must start operation of bus line within 30 days after permit issued.**

**Carry sufficient reserve equipment to maintain schedules.**

**Report to board interruption of service lasting more than 24 hours.**

**Minimum deposit of \$25.00 with each application to cover hearing.**

**Failure to operate five consecutive days cause for forfeiture of all rights.**

**File time tables with board 15 days prior to effective date.**

**Schedule changes in rates 30 days prior to effective date.**

**Vehicles having two or more cushioned tires taxed double.**

**Revocation of permit when taxes delinquent 60 days on the assumption owner of line not financially able to operate.**

**Speed limit of 30 miles for passenger vehicles and 20 for freight.**

**Two red flags and two red lights must be carried on each vehicle.**

**Gasoline tanks must be on outside of bus, and not filled while motor running.**

**No oil stoves permitted.**

**Passengers or drivers must not carry acids, explosives, or other dangerous articles.**

**No smoking.**

**Passengers must not talk to driver.**

**Bus line shall follow detours as prescribed by highway authorities.**

## Stewart-Warner Corp. Doubles Net Income

The Stewart-Warner Speedometer Corp. and subsidiary companies report net income, for the year ended Dec. 31, 1925, of \$7,544,089, as compared with \$3,501,107 in 1924. These figures are given in a preliminary report just made public here.

Earnings per share of common, based on 599,990 shares outstanding, are reported as \$12.57, against \$5.84 in 1924.

## Southern Business Very Promising

1925 Sales Exceeded 1924 by 25 Per cent. Popularity of Bus Largely Responsible

**M**OTOR bus sales in the southeastern states during the past year exceeded by approximately 25 per cent the previous best year in the history of the district, which was 1924, according to information from distributors in the district. Furthermore, present indications promise an even better volume of business during the coming year, principally due to the widespread use of the motor bus now by electric traction companies in the larger southeastern cities, which have been the largest buyers of the motor bus in this section during the past year.

The second largest buyer of bus equipment in this section during 1925 was the independent operating companies, who added largely not only to the total number of buses in use, but have been gradually turning to a heavier type of bus of large carrying capacity. But mileage alone covered by independent companies in the Southeast is believed to have increased during the year approximately 25 to 30 percent, particularly in the Georgia, Florida and East Tennessee territory where there are bus lines now operating over all important highways.

Another big buyer during the year was the real estate operating companies in Florida, who are now operating a large type bus not only all over Florida, but in all of the southeastern states from Virginia to the Mississippi River, transporting prospective real estate buyers into Florida.

It is thought that traction companies will continue to be the leading bus buyer in this section during 1926, with independent companies second.

## 1924 Highway Building Cost \$1.11 Per Capita

The costs of maintaining the highways of the Nation during 1924 was \$1.11 per capita, according to financial statistics of the 48 state governments in 1924, just completed by the U. S. Bureau of the Census.

The total operating and maintenance for all the states amounted to \$1,001,465,000, or \$9 per capita. Of this sum, \$123,308,000 was expended in maintaining the highways. Expressed another way, the figures show that for all the states, 12.3 per cent of the total expenditures was for highway operation and maintenance. This does not include new highway construction projects.

Incidentally, the assessed valuations of property in all the states, subject to general property taxes, amounted in 1924 to \$131,333,557,565, or a per capita of \$1,180.16.



## Selden Annual Truck Sales Doubled

During the year 1925, truck sales of the Selden Truck Corp., of Rochester, N. Y., showed an increase of 101 percent over sales in 1924.

In a statement, Mr. A. S. More, president of the company, says: "The Roadmaster, our 2½-3 ton 6-cylinder speed truck, has been a big factor in producing our large increase in sales last year.

"In addition to the Selden speed models we will continue to manufacture heavy-duty trucks ranging from two to seven tons capacity, with added improvements and refinements for 1926."

## U. S. Motor Truck Co. Had Prosperous Year

At the annual meeting of the stockholders of the U. S. Motor Truck Co., Charles L. Costello, who has been associated with the company for many years, was elected vice-president and general sales manager. Mr. Costello was originally associated with the Fisk Tire Co., and then became manager of the Citizens Motor Car Co., from which position he went to the U. S. Motor Truck Co.

The annual report of the officers shows that the company is in better condition than at any time in its career. Capital stock is \$1,750,000. The report of the export department shows that sales during 1925 were made in 20 foreign countries.

## Highway Program Augurs Well for Road Equipment

The amount of money to be spent on maintenance of good roads and the additional sums authorized for the building of more highway mileage plus the steel buying for truck manufacturers augurs well for the hoist and dump manufacturers for 1926.

This is the belief of Frank Dewey, assistant general manager of the Wood Hydraulic Hoist & Body Company, who spoke to some 35 branch managers and distributors attending the annual convention at the Wood factory this week.

"Nineteen twenty-five exceeded 20 percent the best year in the history of the company," Mr. Dewey said, "and the outlook for 1926 with orders which have already been received forecasts an even better year."

## Stuebing and Cowan Truck Companies Merge

None of the lines now being manufactured in Holyoke, Mass. by the Cowan Truck Co. will be discontinued as a result of the merger of this company with the Stuebing Truck Co. of Cincinnati, it is stated by J. R. Harland, secretary and manager, who is now in charge of operations at the Holyoke plant. It is expected that the volume of output will be increased shortly as a result of taking over unfilled orders from the Cincinnati plant. This will mean increasing the operating force at the Holyoke plant, it is thought.

## Motor Truck Industries, Inc., to Meet at Timken-Detroit's Plant

The invitation of Colonel Fred Glover, president of the Timken-Detroit Axle Company, that the next meeting of Motor Truck Industries, Inc., be held at their offices was accepted.

The meeting will be held on Wednesday, February 24th, starting in the morning at nine o'clock. Two outstanding speakers, men who are at the head of large motor truck fleets, have been secured.

## N. S. P. A. Plans Road Activities

At the January meeting of the Board of Directors of the National Standard Parts Association, held at their headquarters in Detroit, January 29th, 1926, activities of a very broad and comprehensive scope were adopted which will add to the already established asset value of a membership in the association.

Chief among these are the promotion of a definite plan of group organization among the replacement jobbers throughout the country, whether N. S. P. A. members or not and the active co-operation of N. S. P. A. officers in organizing such groups.

Creating for the benefit of the jobber trade a standardized accounting, bookkeeping, and stock keeping system which can be operated by the jobber at a minimum of time and expense and the continued lending of the efforts of the association and its officers to the bettering of conditions in the replacement parts industry.

The Townsend Company, New Brighton, Pa., manufacturers of rivets, nails, wire and wire products, recently celebrated its one hundred and tenth anniversary. It has the prestige of being the oldest wire mill in America.

## Buys Clydesdale Motor Truck Co.

The Clydesdale Motor Truck Co. plant at Clyde, Ohio, offered for sale on an order of the Federal District Court, was sold at auction by the Commerce Guardian Trust & Savings Bank, Toledo, Ohio, receivers, and was bought by H. Peltowitz, of the Marine Metal Supply Co., New York.

"We are working on reorganization now," said Mr. Peltowitz, "and expect to complete it soon. Meanwhile, we are operating the plant on a small scale for service and parts, and parts' orders are being filled. We hope to begin manufacturing trucks in two or three weeks."

## Mack Buses Show 159% Increase

Deliveries of Mack buses in 1925 increased 159 percent as compared with deliveries in 1924, and during the last six months of the year exactly 100 more buses were delivered than during the entire year of 1924.

Of the three models of buses manufactured by the company, the greatest demand was for the city type. Thirty-two percent of deliveries in 1925 were 29-passenger city type, 15 percent were 25-passenger city type, making a total of 47 percent as compared with 22 percent for parlor car buses and 8 percent for sedans. The balance was special units.

## 1925 India Tire Sales Increase 69.6 Per Cent

Net sales of the India Tire & Rubber Co. for 1925 were \$4,600,121.40, representing an increase of 69.6 per cent over 1924 business, according to President J. M. Alderfer.

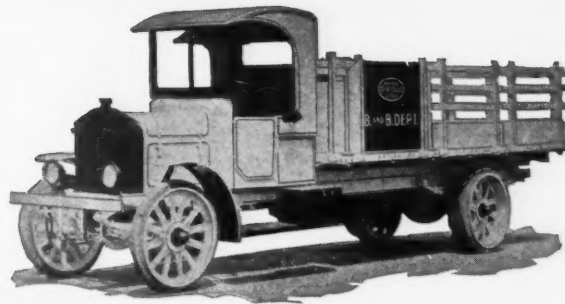
Net earnings totaled \$471,476.38. Average profit on sales figured at 10.2 per cent.



District managers of Service Motors, Inc., Wabash, Ind., hold two-day conference

Top row, left to right: W. E. Murphy, Purchasing Agent; C. H. Yetman, Manager New York Branch; E. H. Lowe, District Manager Dayton, Ohio; J. C. Mason, District Manager Lexington, Kentucky; D. F. Myers, Engineering Department; C. B. Stults, District Manager Washington, D. C.; E. M. Schrader, Manager Chicago Branch; S. E. Houston, Advertising Manager; G. T. Mahaney, District Manager, Fort Wayne, Indiana; and T. A. Walsh, District Manager, Terre Haute, District. Second row: W. L. Manning, District Manager, Pittsburgh, Pa.; A. K. Taber, Treasury Department; LeRoy Alley, District Manager, Los Angeles, California; Henry Wolf, Central Region Manager; G. L. Gillam, Vice-President and General Manager. Third row: G. A. Lazear, District Manager, Newark, N. J.; Roy Packard, District Manager, South Bend, Indiana; Otto Thornberry, District Manager, Indianapolis, Indiana; G. J. Garber, Order Department; Aaron E. Bard, District Manager, St. Louis, Missouri; F. J. Shaw, District Manager, Syracuse, N. Y.; William J. Seitz, Distributor, Detroit, Michigan. Front row: G. A. Lytle, District Manager, Cleveland, Ohio; H. O. Denman, Plant Superintendent; R. G. Ivory, District Manager, Springfield, Illinois; S. G. Gross, District Manager, Youngstown, Ohio; L. W. Campbell, District Manager, Clarksburg, West Virginia; Maurice Thornberry, District Manager, Indianapolis, Indiana; J. P. Seitz, District Manager, Baltimore, Maryland; E. A. Dennis, Sales Manager.

*Any Size for  
Any Truck!*



## *Rolled Steel Truck Wheels*

BETHLEHEM STEEL COMPANY, *General Offices:* BETHLEHEM, PA.

*District Offices in the following cities:*

New York	Boston	Philadelphia	Baltimore	Washington	Atlanta	Buffalo	Pittsburgh
Cincinnati	Cleveland	Detroit	Chicago	St. Louis	Seattle	San Francisco	Los Angeles

# BETHLEHEM



## Personals

Charles H. Bauer succeeds W. H. Smith, resigned, as manager of the automotive jobber sales division of the L. H. Gilmer Company, Philadelphia.

Frank E. Bolway has been appointed sales manager of the distributor and dealer division of the Federal Motor Truck Co. He has for the past ten years been connected with the selling and organizing end of the truck business.

Claude S. Briggs has resigned from the Gottfredson Corp., which company he had entered some time ago, to develop a body building department.

R. Charles Brower has been promoted to the position of assistant to H. J. Porter, vice-president in charge of sales of the Timken Roller Bearing Co.

Orville Coppock, sales manager of the Standard Motor Truck Company, will in the future be known as advertising and sales manager. J. F. Ohmansiek has been appointed district sales representative for the Middlewestern territory.

P. L. Emerson, vice-president in charge of sales for the Yellow Truck & Coach Mfg. Co., has been advanced to the presidency of the newly incorporated Yellow Mfg. Sales Corp. Personnel of the new corporation is as follows: Vice-president in charge of cab and Hertz car sales, H. T. Kessler; vice-president in charge of coach sales, H. E. Listman; secretary and treasurer, I. B. Babcock; assistant secretary, W. F. Fielder; assistant treasurer, E. J. Keilty.

William Fairhurst has been appointed sales manager of the Spicer Manufacturing Co.

M. H. Frank, division manager of the Wisconsin Power & Light Co., of Fond du Lac, Wis., was named president of the recently organized Wisconsin Motor Coach Association. Other officers of this association are: Harry G. Monger, first vice-president; L. C. Knapp, second vice-president; D. R. Fitzgerald, treasurer.

James L. Geddes, president of the former Kelly-Springfield Motor Truck Co., died recently at his home after a brief illness.

F. M. Germane, formerly connected with Gilliam Mfg. Co., has become president of the Bearings Company of America, Lancaster, Pa. His headquarters will be in Philadelphia.

Joseph B. Graham, president of Graham Brothers, has been made vice-president in charge of manufacturing for Dodge Brothers, Inc. A. Z. Mitchell has been made vice-president in charge of purchases.

H. L. Horning, president of the Waukesha Motor Company, has been elected president of the Motor & Accessory Manufacturers' Association. Other officers elected are: First vice-president, C. H. L. Finterman; second vice-president, E. B. Clark; third vice-president, M. A. Moynihan; treasurer, L. M. Wainwright; secretary and assistant treasurer, J. M. McComb.

C. C. Jamieson, a New York manufacturer, has been elected chairman of the American Bus & Truck Co., which recently purchased the plant of the Kelly Springfield Motor Truck Co. Board members are: H. E. Freeman, R. D. Scott, Walter Kutzleb and H. W. Torney.

John Joseph, formerly associated with the B. F. Goodrich Co., is now vice-president and general manager of the Cincinnati Rubber Mfg. Co.

R. W. Judson was re-elected president of the Continental Motors Corp. Other officers re-elected are: W. R. Angell, executive vice-president; W. A. Frederick, vice-president in charge of engineering; R. M. Sloane, treasurer; T. M. Simpson, secretary.

## Tire Manufacturers Reduce Prices 10%

President H. S. Firestone, of the Firestone Tire & Rubber Co., reduced by 10 per cent all Firestone tires and tubes. Dealers were notified that they would be protected against further possible price reductions on "spring stock" orders until July 1.

Mr. Firestone said he looked for a further decline in the crude market, which would be accompanied by more tire reductions.

Later reports announced that other manufacturers were preparing to revise their schedules.

## White Co. Announces Chassis Improvements

A number of improvements and refinements in its special bus chassis, which hereafter will be known as the Model 50-B, supplanting Model 50-A, is announced by the White Co.

One of the more important changes is the installation of Westinghouse air brakes as standard equipment. This type of brake makes it possible to use metal-to-metal friction surfaces in the rear wheel brakes, which tends to eliminate trouble from heating.

## Production at American Bus &amp; Truck Co. Begins

Production of motor buses and commercial trucks started recently at the Kelly plant of the American Bus and Truck Co., Springfield, Ohio.

The American Bus and Truck Co. recently purchased the property from the Kelly-Springfield Motor Truck Co. at a receiver's sale.

## Thermoid Issues New Trade Prices

The Thermoid Rubber Company of Trenton, N. J., have discontinued the consumer price list on brake lining, which has been in effect for more than twenty years and have adopted new trade or dealer list prices on Thermoid Hydraulic Compressed and Thermoid Interwoven Brake Lining.

## Breaking Records With Splitdorf Magnetos

M. W. Bartlett, president of the Splitdorf Electrical Company, reports a steady increase in magneto business in all industries.

## 123 Per Cent Increase for Graham Brothers

Graham Brothers' increase in total truck shipments is from 70,791 in 1924 to 24,056 in 1925 from their four plants, Detroit, Evansville, Stockton and Toronto, a gain of 123 per cent.

## Personals

C. S. Kegerreis, formerly connected with the Purdue University, has joined the Tillotson Manufacturing Co., where he will direct the new research department, which has been organized to study carburetion as it relates to the internal combustion engine.

Paul N. Lineberger, vice-president and sales manager of Rainier Trucks, Inc., has resigned and disposed of his interests in said company. He has accepted an appointment as eastern sales and export manager for the Maccar Truck Co., with headquarters at 4th Ave. and Warren Sts., Brooklyn.

M. G. Michaels has joined the sales force of the India Tire & Rubber Co., Akron, Ohio, working out of the New York branch.

Carter Miller, manager of advertising and sales promotion for the Timken Roller Bearing Co., recently died after an illness of a few days.

Paul Moore, general manager of the Garford Motor Truck Co., has been appointed to the motor truck committee of the National Automobile Chamber of Commerce. Other members of the committee are: Windsor T. White, David C. Fenner, M. L. Pulcher, David S. Ludlum, O. H. Browning and O. E. Stoll.

R. E. Olds, chairman of the Reo Motor Car Co., sailed recently for Africa. It is understood that he plans to look over rubber lands with the idea of purchasing a large tract for cultivation by an American organization.

Oscar F. Ostby, who will be remembered by his many friends in the motor truck industry by his former connection with the Prest-O-Lite Co., as general sales manager of the battery division of the same concern, has recently entered a new field. He is now vice-president and general sales manager of the Burnoil Oil Burner Corp., 56 West 45th St., New York City.

J. L. Price has resigned as president of the Bendix Brake Co., New York, but remains vice-president of the Bendix Corp., of which the first-named concern is a subsidiary. His successor is Vincent Bendix.

Granville P. Rogers has been appointed managing director of the National Council of Lighting Fixture Manufacturers.

E. H. Shepard has been appointed sales manager for the Rayfield carburetor division of the Beneke & Kropf Mfg. Co., with headquarters in Detroit.

G. M. Stadelman, president of the Good-year Tire & Rubber Co., and first vice-president of the Rubber Association of America, died suddenly at his home.

Joseph O. Stokes, president of the Thermoid Rubber Co., recently died.

Stanley Stowers has joined the New Era Spring & Specialty Co. as their New England sales manager. F. B. Geitz has joined the company as district sales manager in five states.

L. L. Tremper has resigned his position as head of the purchasing and manufacturing departments of the Indiana Truck Corp. He is succeeded by H. E. Blasingham.

C. N. Uhl has been appointed to direct the Transportation Division of the Braender Rubber & Tire Co.

A. W. Wiese will continue as manager of the Strom Division of the Marlin-Rockwell Corp., which has moved its Philadelphia office to 1211 Franklin Trust Bldg., 15th and Chestnut Sts.

Ernest Wooler has been appointed chief engineer of the Timken Roller Bearing Co. Other changes include the promotion of J. W. Spray, to manager of sales, automotive division, and E. W. Austin as assistant manager of sales, automotive division.



## WHEN HE'S HAPPY, SO'S HIS BOSS

THE driver of a Ross-equipped bus or truck *likes* his job—and *hangs onto it*. He appreciates the ease of handling and the sense of security that comes with the Ross Cam and Lever Steering Gear. Good drivers are hard to get—and *harder to hold*. Owners of Ross-equipped busses and trucks know *why* they have and *hold* the best drivers . . . . Many other advantages, too. Let us talk them over with you.

ROSS GEAR AND TOOL COMPANY . . . Lafayette, Indiana

**ROSS**  
**CAM and LEVER**  **STEERING GEARS**  
**EASIER STEERING** **LESS ROAD SHOCK**



## A Forward Step in the Wrench Industry

Since wrenches were first made by hand, and even up to very modern times, ordinary steel has always been used either hardened by tempering (in which case steel of high carbon content was used) or else a low carbon steel was used and the surface subsequently case-hardened. This produced a wrench sufficiently hard and resistant for ordinary purpose, but where strength was necessary it was found that heavy sections must be used to produce rigidity and strength, and the natural consequent was a heavy, clumsy and bulky tool. Heavy construction, of course, represented a handicap when working at points not readily accessible. It restricted the use of the earlier wrench, and mechanics

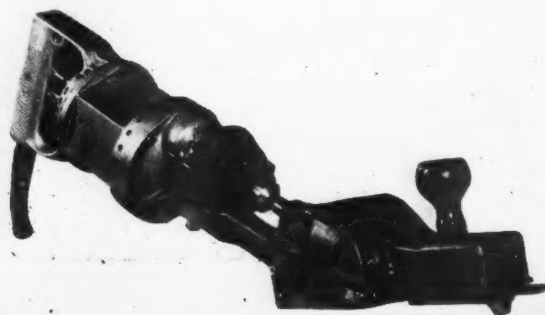


found increasing demand for a thin, long-nosed wrench for use in tight places.

The Bonney Forge & Tool Works recognizing this need set about determining what steels were best for thin section and enormous strength. It found that no steel alloy or combination of metals could approach in durability and strength the alloy produced by the use of chrome and vanadium. Hence, this alloy was chosen.

The design of the wrench—the pear-shaped head, the polished nickel heads, the silver finished body, the decalcomania and the words "Chrome Vanadium" prominently featured where adopted by the Bonney Forge & Tool Works to make it easy to distinguish their product and to avoid confusing it with any wrenches which had been made before.

It was only after exhaustive research as to design, weight and accessibility that the company crystalized its efforts into the production of its new tool. The data secured involved not only the design, form and finish of the wrench, but information as to sizes of opening, depth of throat, angle at which the opening was set, the combination of openings and thickness of heads. All these and more points of information were made the subject of careful test and thorough investigation.



The line of C-V Chrome Vanadium Wrenches was the result.

The above facts relate to the development of the stock line of tools. Appreciation of the value of Chrome Vanadium soon began to become evident through requests from manufacturers and makers of machines all over the country for special wrenches which should have the Chrome Vanadium steel and its treatment incorporated. Customers wanted wrenches



Bonney wrenches are furnished for every purpose

to meet particular needs, wrenches with unusual shapes of handles, unusual combination of socket and open end, special designs of spanner and uncommon depths of throat. In each case, the peculiarity of design was met by special provisions and in all cases the C-V material properly treated produced results which far exceeded expectations. A line of socket wrenches was the next achievement.

## Black & Decker Fleming Solid Tire Regroover

The Black & Decker Manufacturing Co. of Towson, Maryland, announce the new Fleming Solid Tire Regroover, which is operated by the Black & Decker Heavy Duty  $\frac{1}{4}$  in. Drill.

The knife is "V" shape, giving the desired form of groove, and is so guided that it always cuts to the same depth. Two sizes of knives are furnished, one cutting  $\frac{1}{2}$  in. depth of groove and the other  $\frac{3}{4}$  in. Curves, circles and sharp right angle turns can be made and the knife can be made to enter or leave the tread at any point at will.

Provision is made for quickly removing the knife for replacement or for sharpening. It requires but a moment to in-

Right: Special Bus Wheel for dual pneumatics

Left: New Black & Decker solid Tire Regroover



sert a new knife when ever necessary.

The regroover is so designed that the knife receives 3000 impulses a minute. The power from the drill is transmitted through hardened steel spiral gears, packed in grease, with provision for lubricating the reciprocating parts.

This solid tire regrooving outfit sells to the trade for \$75 and consists of the following: Heavy duty  $\frac{1}{4}$  in. electric drill, \$38; solid tire regroover with  $3\frac{1}{2}$  in. and  $3\frac{3}{4}$  in. knives, \$37. Extra knives of either  $\frac{1}{2}$  in. or  $\frac{3}{4}$  in. depth can be furnished for 50 cents each.

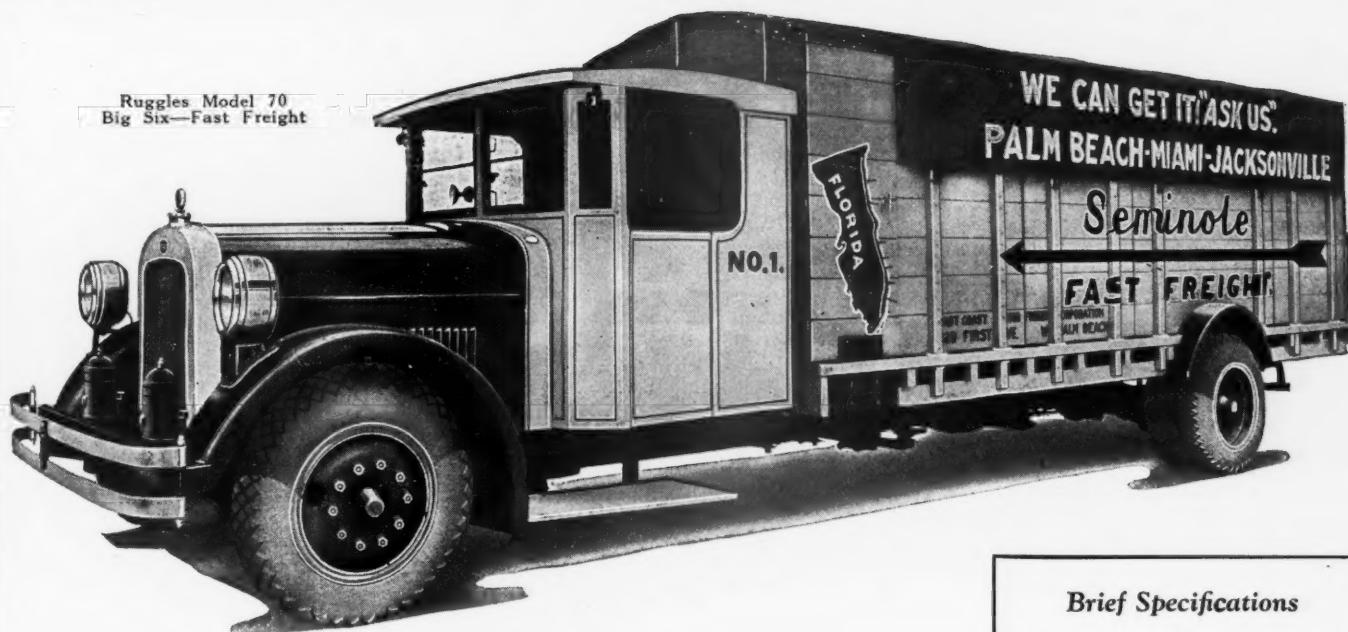
## Van Dual Pneumatic Wheel

The Van Dual Wheel product of the Van Wheel Corp., Oneida, N. Y., and manufactured in the new Van Metal Wheel Division of the Erie Malleable Iron Company at Erie, Pa., is a departure from conventional type, in that it carries standard Firestone or Goodyear rims, and standard wood wheel hubs. Both rims are mounted on the old-style steel felloe bands formerly used for shrinking over wood felloes. The rear band is permanently riveted in place. The rim mounts on it and is bolted up the same as any single tire wheel. The front rim is mounted on a loose felloe band, split to provide proper gripping action. The felloe band drops over the front of the wheel, and is held in place by the same bolts and clamps which keep the rim in place. To take off the rear tire, the front eight nuts and clamps and the clamping ring are removed. The front rim and front steel felloe band then slide off, and the rear rim is removed the same as if it were on a single wheel. The rim bolt nuts for the rear rim can be tightened up while the front rim is in place.

Brake drum and rims are kept cool by radiation. Hot air is radiated through the hollow spokes, thus dissipating any tire heat.

The Van Dual Wheel will be of interest not only to bus operators, but to truck manufacturers and owners desiring Dual Pneumatic tires instead of single pneumatics or solids.

Ruggles Model 70  
Big Six—Fast Freight



## Speed With Safety!



Built for rapid transportation of heavy as well as bulky loads, the new Ruggles Model 70 Fast Freight brings to the transportation world new possibilities for development of long distance hauling.

Forty miles an hour with a 5-ton load is now possible with safety.

With a frame height of only 22½ inches the body is unusually low hung for easy loading. A vertical, capstan power-winch in a separate compartment at forward end of body loads heavy freight without effort.

Extra wide four-man cab with two folding berths provides suitable ac-

commodations for truckmen on long trips. Long, massive frame and rugged construction permits an eighteen foot body without overhang. Proper balance and best possible distribution of weight insures safety at high speeds. Booster brake insures quick stops. These are only a few of the many features which will interest all truckmen.

Ruggles Motor Truck Company  
Saginaw, Michigan, U. S. A.

# RUGGLES

A COMPLETE LINE OF "SIXES" AND "FOURS" FOR EVERY HAULING NEED

### Brief Specifications

Wheel Base—236".  
Over All—343".  
Frame—Only 22½" from ground.  
Motor—105 horsepower, 6 cyl.  
Rear Axle—Ruggles - Wisconsin double reduction.  
Front Axle—Drop design, "I" beam construction.  
Transmission—Four speeds forward and reverse.  
Drive—Three-piece propeller shaft, straight line drive. Drive taken through specially designed radius rods.  
Frame—Extra heavy, 8" 1-piece side members, five cross members and body outriggers, giving extra rigid body support.  
Radiator—One-piece cast aluminum shell with removable cellular core. Capacity 14 gallons.  
Brakes—Extra large brakes on rear wheels. Vacuum type. Booster brake doubles foot pressure.  
Springs—Chrome vanadium steel.  
Tires — 34x7" pneumatics all around. Duals in rear.  
Shock Absorbers—Cruss Transport Type air springs.  
Tread—73½" front; 75¾" rear, between dual tires. Tread outside dual rear tires 85".  
Turning Radius—35'.  
Chassis Weight—6700 lbs. Spring pad allowance 13,000 lbs.

Write for literature and complete specifications



## C. C. J. SHOP IDEAS

**T**HIS page is primarily designed to help service station repairmen in exacting economies in time, labor and money. Salesmen, however, can also profit by scanning over these practical

hints. The average buyer of today is more conversant with the important details of truck operation and maintenance than ever before. A money-saving idea will often result in a sale.

Commercial Car Journal will pay for each new idea which it accepts. Simply tell us exactly how it is done and send a rough pencil sketch showing clearly the method employed or the device used.

### No. 49—Cleaning Rusty Rims

An old speedometer cable has been found to be a very useful bit of equipment for cleaning rusty rims. The cable is immersed in kerosene and drawn over the rim as illustrated. Three-foot lengths is recommended for this purpose.—Donald McClean, 15,706 Grovewood Ave. N. E., Cleveland, O.

### No. 51—Holder for Light

The accompanying sketch shows an effective cage holder that will permit the attachment of an extension lamp at almost any point.

Bend 3/16 in. drill rod or steel iron as shown. The ends A and B are normally together so that when C and D are squeezed the ends are forced open permitting attachment to any projection fitting between the jaws.—F. J. Wilhelm, Wil-Lie Mfg. Co., Cincinnati, O.

### No. 50—Straightening Rims

A ball-headed hammer ground to conform to the inside dimensions and curvature of the bead of a rim, may be effectively employed to restore a dented or partially collapsed rim bead to serviceable condition.

In reconditioning a rim a cross pein or riveting hammer will also serve as well as the reground ball pein type.

Another device satisfactory in straightening out rims is one which may be constructed from a piece of spring leaf. The leaf is hooked at one end as illustrated and is used by hooking under the bead and applying pressure at the lower end.—J. M. Early, Toleta Garage, Toleta, Cal.

### No. 52—Pick-Up Tool

The loss of a bolt, nut, pin or retainer in the base of a transmission, crankcase, differential or sod pan is often the cause of considerable effort in recovering. A ready means of recovery is furnished by the device illustrated. It consists of a plain wooden handle fitted at one end with a small metal cup and at the other end with pronged wires. Either end may be used according to which end will meet the condition.

The prongs are arranged outwardly as shown. In use the cup tool is normally filled with heavy grease and the adherence of the part to the grease is the means of recovery. The other end may be used together with a rag in a swabbing fashion.—George A. Luers, Washington, D. C.

### No. 45—Swabbing Out a Nut

First drain out the oil and remove the transmission plate. Then insert a large piece of rag, pulling it between the magnet supports as illustrated in the insert and cutout section of the accompanying illustrations. Slow rotation of the engine by means of starting crank will work rag around entire case. The object sought will be swabbed up and, when the revolution has been completed, can be picked off the rag.—Handy Garage Davenport, Iowa.

### No. 47—Valve Crinding Equipment

A simple and effective valve grinder can be constructed from a section of an old spoke and the lower forked end of a Ford carburetor adjusting rod, as illustrated.

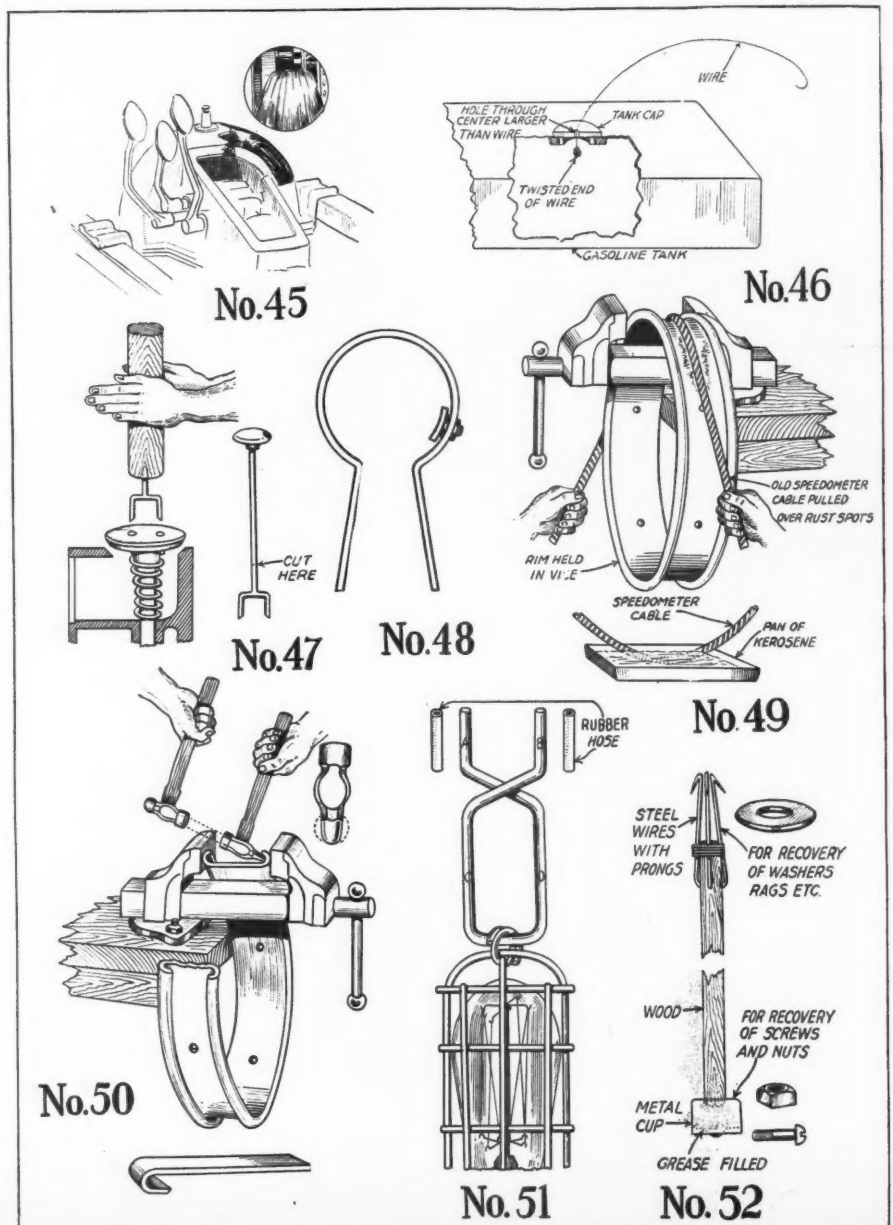
### No. 48—Piston Groove Cleaner

By means of the device shown one or two quick revolutions around a piston will quickly clean piston ring grooves of practically all carbon deposits.

This device is constructed from a piston ring squeezer (Ford) and a contact segment from an old Ford timer.—R. M. Shelton, Plano, Tex.

### No. 46—Securing the Tank Cap

To prevent loss of filler caps drill a small hole through the center of the cap or enlarge its air hole and insert one end of a piece of common iron wire through it. The wire should fit through the opening loosely. It is twisted at one end and fastened at the other.



# \$2000 REWARD



## for the best names to give this man

**THIS MAN** is going to work for *you*. It's up to you to name him. We want a name something like "Profit Pete," because he is going to show you how to increase your profit by saving shop time in handling replacement parts;

or "Quality Cal," because he is going to show how you can be sure of quality in replacement parts; or "Tim True," because he stands for "accuracy first". A clever snappy name that suggests all of these ideas will win the money.

*To the five persons who submit the best names we will give the following prizes:*

*First \$100; second \$50; third \$25; fourth \$15; fifth \$10*

*Read contest rules below—then mail suggestions today!*

**Here are the conditions**—Mail your suggestion on the coupon in this advertisement. Write or print plainly, and fill in your full name and address.

Contest closes at midnight March 1. All entries, to be eligible, must be postmarked not later than that date. In case of a tie the amount of the prize tied

for will be divided between the tying contestants. The decision of this company will be final. Contestants may submit as many names as desired, but no more than one name shall be submitted on the same coupon.

Additional coupons may be had on request. Write our Buffalo office mentioning this magazine.

Decisions will be made by officials of this company as soon as possible after the contest closes and announcement of the winning names will be made immediately thereafter.

It is understood that the advertiser shall have the right to use the winning name in any way he sees fit.

**KING QUALITY PRODUCTS, Inc. BUFFALO, N. Y.**

**COUPON**

King Quality Products, Inc., Dept 'D, Buffalo, N. Y.

*I suggest the following name for your service man:* .....

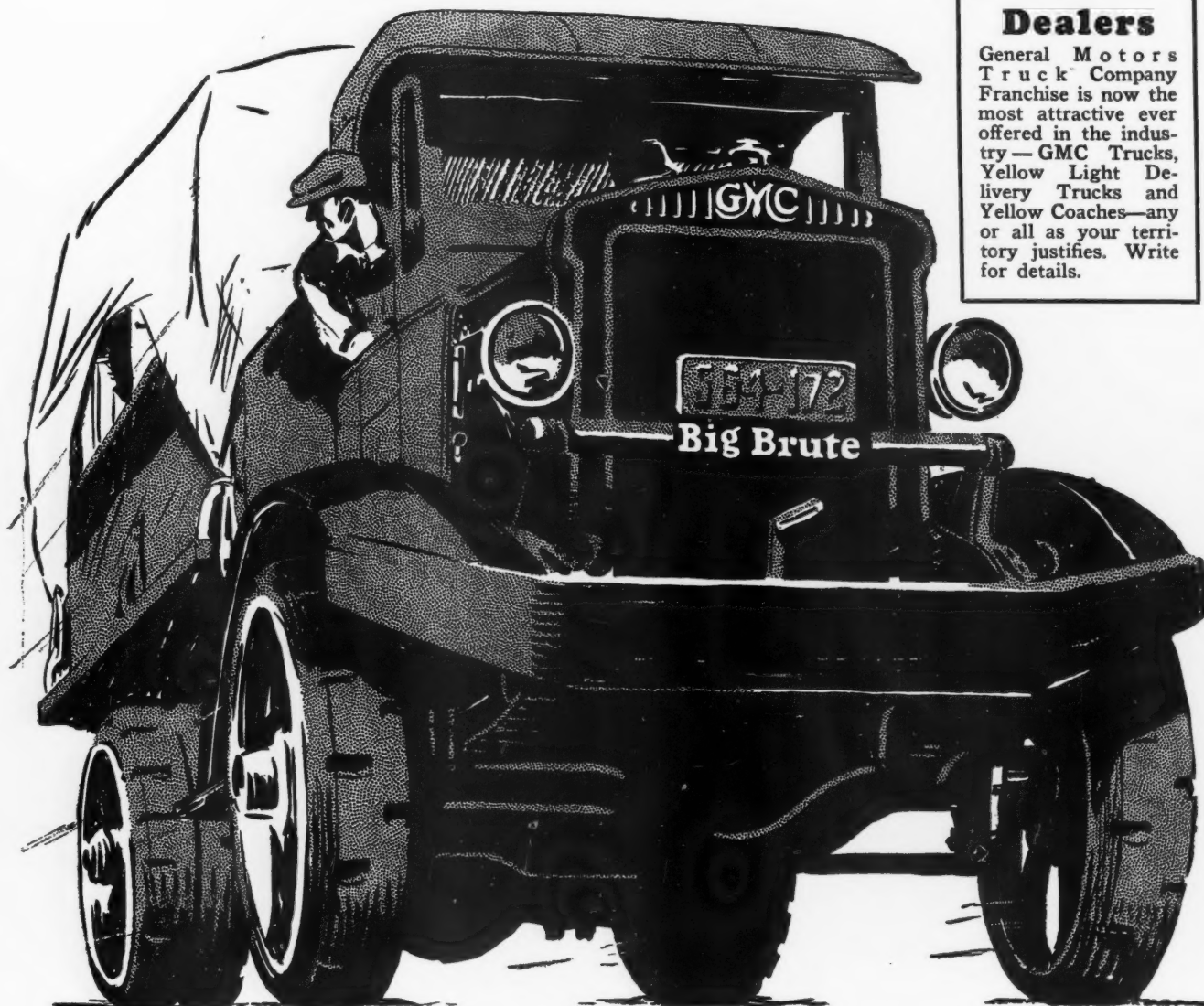
Signed .....

Name of Company .....

Address .....



# A truck such as men



## Dealers

General Motors Truck Company Franchise is now the most attractive ever offered in the industry—GMC Trucks, Yellow Light Delivery Trucks and Yellow Coaches—any or all as your territory justifies. Write for details.

## General Motors Contribution to American Industry

**B**ORN of the combined engineering genius of 1,000 of the world's foremost engineers and fostered by the gigantic General Motors Corporation, with operations covering some 144 countries, resources running in the hundreds of millions of dollars and sales aggregating One Billion Dollars yearly, comes Big Brute—a truck such as the industrial world has never seen before.

# GMC Big Brute

# have never seen before

**B**RUTE in name, power, in size. Brute in terrific stamina and tremendous endurance. Big Brute is built to stand impregnable against the most brutal requirements of man and industry.

Beautiful in its brutal ugliness, Big Brute looks what it is . . . . a *Colossus among the Giants of modern transportation*. With the operating ease of a lithe passenger vehicle: a Fisher-Built Cab to furnish driver's comfort unknown before, and mechanical improvements years beyond the ordinary conception of today, it stands to change the industrial motor transportation of the world.

## A Truck Without "Bugs"

From its vast engineering experience, covering the production of over 4,849,485 passenger and commercial cars, during the last 25 years, General Motors Corporation has eliminated, in Big Brute, the vital weaknesses, the engineering mistakes, the structural flaws previously common among heavy duty trucks. **Big Brute is a truck without "bugs."** More than 71% of all motor vehicles made and sold by General Motors are now in active service.

The motor trucks of the entire world were studied by General

Motors engineers in developing Big Brute. It was learned why some trucks rendered but limited service. Why others surpassed them. Why some operated under nominal upkeep, while others were economic failures. One by one, these factors were met, analyzed and weighed. All mistakes of past years were corrected. *A new standard in heavy transportation thus was set.*

## Sold Under GMAC Plan

Big Brute, like all other products of the General Motors Corporation, is offered under the liberal General Motors Acceptance Corporation Plan of deferred payments—the lowest cost under which any motor car or truck can be financed on time payments.

GENERAL MOTORS TRUCK  
COMPANY  
PONTIAC, MICH.

*Products of*

### **Yellow Truck and Coach Manufacturing Company**

*subsidiary of General Motors*

GMC Big Brute, 3½ and 5 ton trucks

GMC 1, 1½ and 2½ ton trucks

Yellow Cabs

Yellow Coaches

Yellow Light Delivery Trucks

Hertz Drivurself Cars

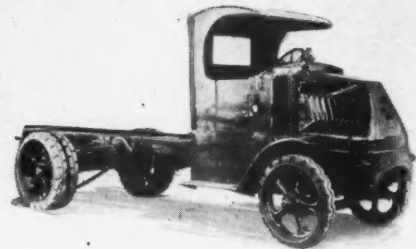
GMC 5 to 15 ton Tractors

# GMC Big Brute

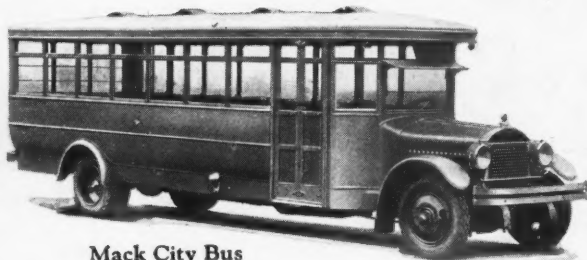




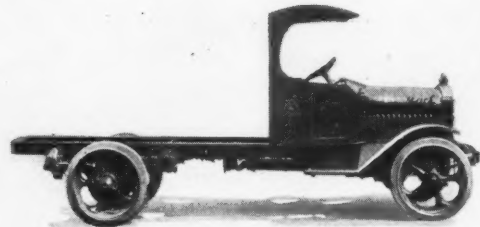
Mack Parlor Car Bus



Mack Truck Chassis - Model A C



Mack City Bus

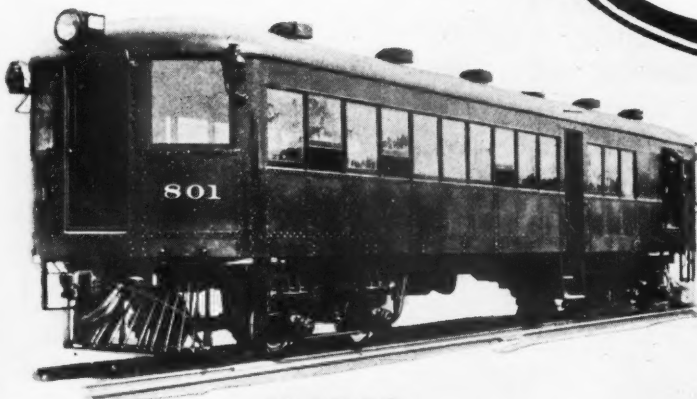


Mack Truck Chassis - Model A B

*Where performance counts  
your ultimate choice  
will be*



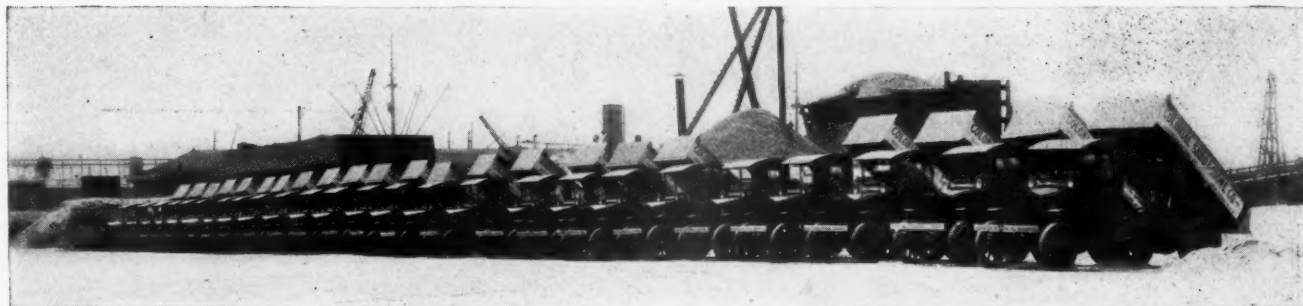
Mack Fire Apparatus



Mack Rail Car

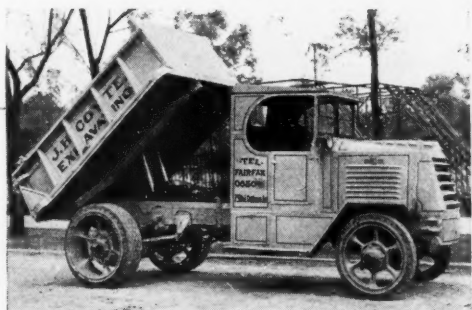
MACK TRUCKS, Inc.  
INTERNATIONAL MOTOR COMPANY  
25 Broadway New York City

Ninety-five direct MACK factory branches operate under the  
titles of: "MACK-INTERNATIONAL MOTOR TRUCK  
CORPORATION," "MACK MOTOR TRUCK COM-  
PANY," and "MACK TRUCKS OF CANADA, LTD."



The Colonial Sand and Stone Co. of New York City use Heil Hoists and Steel Lined Wooden Bodies on all their new 5 ton Pierce-Arrow Trucks. Colonial needs sturdy bodies. They demand dependable hoists. Heil Dumps solved their problem. Fifty-three units went into service early in the season. These have been followed by forty more—a repeat order. "It pays to buy Quality."

# GIVE 'EM HEIL for Service



Heil RSC Model 31 Dump Body mounted with a No. 5 Heil Hoist on a 4 ton Indiana truck. The body is 9'-0" long, 6'-0" tapered in width, 27" high, with a capacity of 4½ cubic yards. Note how heavily the body sides and tailgate are reinforced. Top hinges of tailgate and set back from rear end of body—this feature enables easy dumping of bulky loads.



Heil-equipped Trailer Dump with an SSC Dump Body and a Heil Hydro Hoist. The dump body has a rounded front end so that the tractor can easily turn at right angles. This body design throws the weight of the load forward on the tractor giving it maximum traction. These bodies are built in sizes up to 15 cubic yards in capacity.

## THE HEIL CO.

1143 Montana Avenue

Milwaukee, Wis.

Factory Branches and Warehouses in Philadelphia and Chicago. One of our distributors is near you.

Truck Dealers: Send in the coupon below for Bulletin 152. Indicate the trucks you are interested in. Mail the coupon today.

*Send in this Coupon Today!*

I would like to see Bulletin 152, which shows Heil equipment mounted on fifteen different trucks. This coupon will secure illustrated information for me without any obligation on my part whatsoever.

Name .....

Address .....

City ..... Truck .....

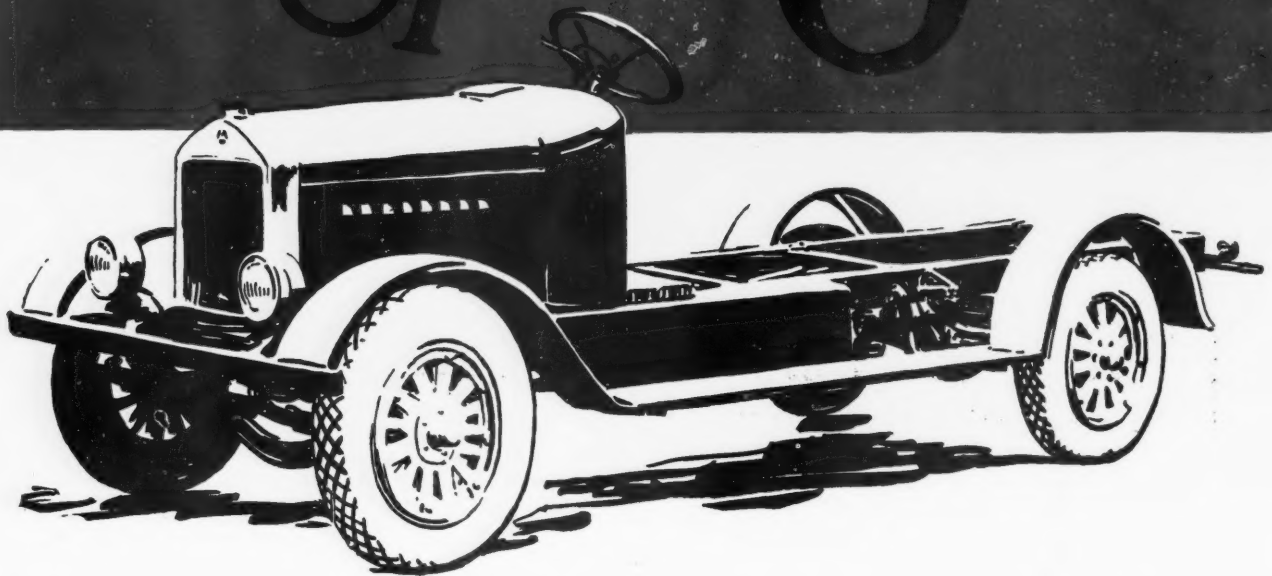




# ATTERBURY

*announces the new*

## Speed 6



The greatest Speed Truck that  
will roll on wheels this year--

It is a 1-1½ ton, low hung, 6 cylinder high speed truck that has:

- 40 miles an hour for the man that wants speed
- a full 1-1½ ton capacity
- a sweet running six cylinder motor
- the weight and strength to keep it out of the one year class
- and complete equipment, everything from front bumper to rear fenders, ready for body and cab.

You won't know *all* that's new in Speed Trucks until you know about the Atterbury Speed Six. Send for complete specifications.

**\$1495**

At Buffalo  
TAX EXTRA

**ATTERBURY MOTOR CAR CO.**

ESTABLISHED 1903

Elmwood Ave. at Hertel

Buffalo, N. Y.

Export Office: 615 Fisk Bldg., Broadway and 57th Sts., New York

Also 1½-2, 2½-3, 3½-5, and 5-7 ton models.

# ATTERBURY Speed 6

# The Inner Band of Safety!



**DURWYLLAN COMPANY, Inc.**  
Paterson      Makers of      New Jersey

Crown of



Perfection

Products

*Branches at Convenient Distributing Centers*

Kansas City, Mo.

Coca Cola Bldg.

Chicago, Ill.

2328 S. Michigan Ave.

N. S. Pittsburgh, Pa.

202 Martin Bldg., Federal St.

Atlanta, Ga.

416 Wynne-Claughton Bldg.

*A Small Sample, for Comparison  
and Examination, Sent on Request*

Passenger and Commercial Car owners keenly realize the necessity of a truly dependable, long wearing brake lining.

Motoring safety depends entirely on the driver's brakes. The efficiency of the brakes depends on the quality of the brake lining.

Wirebestos Brake Lining, because of its proven efficiency through comparative tests, is now insisted upon by many of the largest commercial car owners.

This compactly woven, highly dependable brake band fabric has justly been termed the "*Inner Band of Safety*"

**Once Used—Forever Demanded**

# WIREBESTOS BRAKE LINING

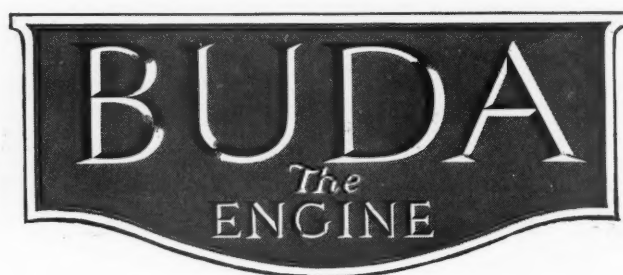


# Are You Buying Right?

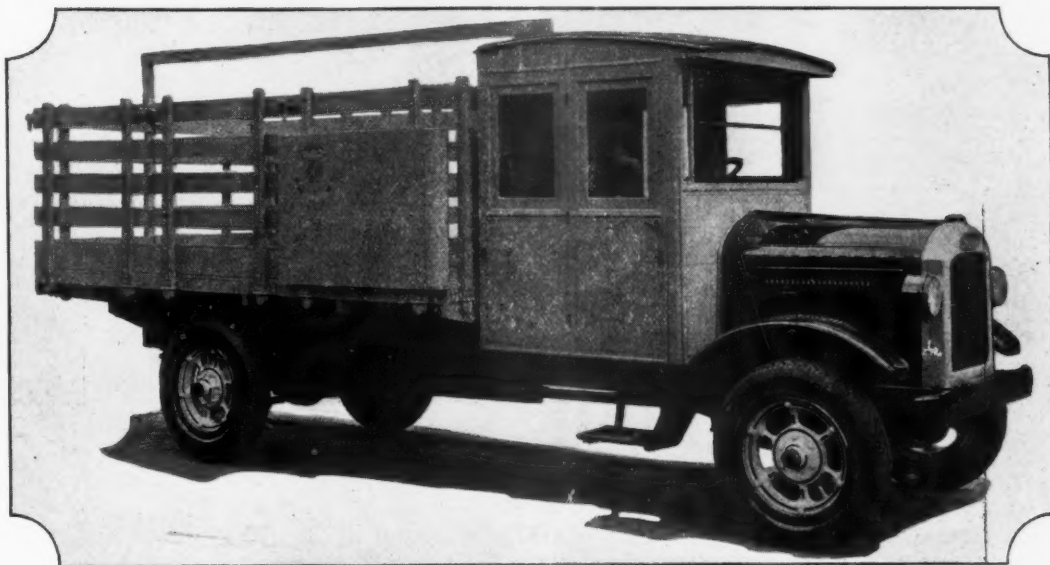
Buda engines are built to give heavy duty service faithfully, *day after day and year after year*, in the hands of all kinds of operators. Because of simple and sturdy design, they can be quickly repaired by the average mechanic in the repair shop or in the field with minimum delay and cost. To produce such engines quality must always come ahead of price. To the manufacturer who uses them, Buda engines mean *added permanence* for his business, *added satisfaction* to his customers.

THE BUDA COMPANY, HARVEY CHICAGO  
SUBURB ILLINOIS  
ESTABLISHED 1881

*Buy only genuine Buda Parts for your Buda engine*

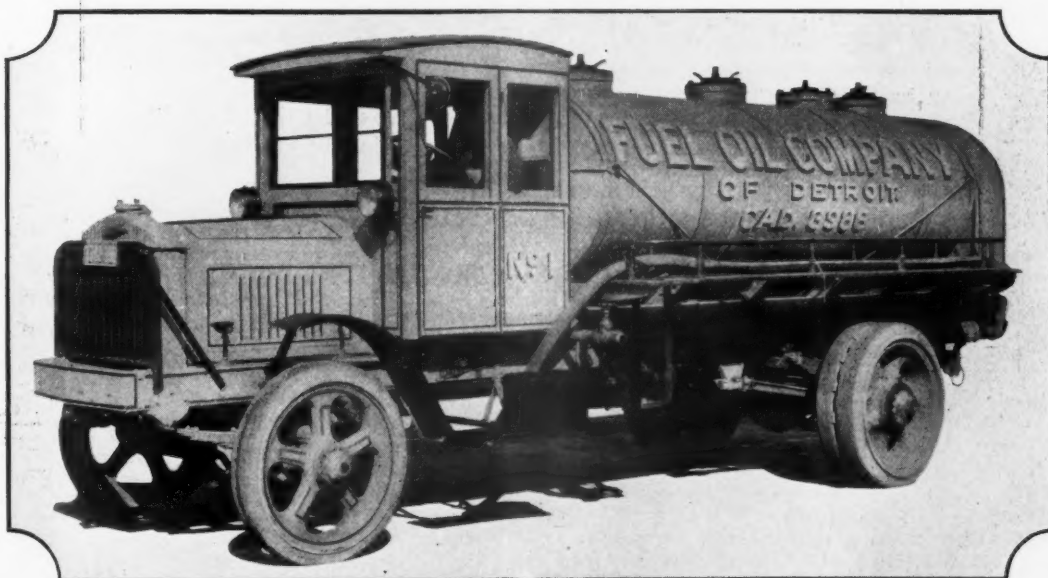


# Complete Line of Greatest Truck Values



*Fisher Fast Freight*

A SPEEDY 1 1/2 TON TRUCK



CAPACITIES

*Standard* MOTOR  
REGISTERED  TRUCKS

1 1/2 TO 7 TONS

**Standard and Fisher Trucks Made for Every Line of Business**

BACKED BY 40 YEARS' EXPERIENCE MANUFACTURING HAULAGE UNITS

**An Exceedingly Profitable Franchise for Aggressive Dealers**

**STANDARD MOTOR TRUCK CO.**

DETROIT, MICH., U. S. A.



## "Prest-O-Lite is best,"

writes R. A. Anderson, of Pomona, California

MR. ANDERSON, who is engaged in the automobile and general trucking service business in Pomona, wrote us recently as follows:

"I have used Prest-O-Lite lighting equipment on my trucks for the past fifteen years, and can say that for trucks it is the very best.

"I now have a fleet of twelve trucks and trailers, fully equipped with Prest-O-Lite head and tail lamps."

(Signed) R. A. ANDERSON

It is not at all surprising that we are continually receiving such letters from large and small fleet operators all over the country, because, after all, there is no light like Prest-O-Lite for heavy-duty truck service.

It is economical to install and to operate. It gives trucks a penetrating mellow light that makes night driving

safe and fast. It is proof against rough roads and bad weather. *It is legal everywhere.*

Prest-O-Lite equipment operates on Prest-O-Lite Gas in convenient tanks. Empty tanks can be exchanged for full ones at any one of the thousands of Prest-O-Lite Service Stations by paying a small amount for the gas only.

As manufacturers of storage batteries for lighting trucks, as well as Prest-O-Lite Gas, we are in a position to tell you the lighting equipment that has proved most satisfactory in various types of service.

THE PREST-O-LITE CO., INC.  
INDIANAPOLIS, IND.

New York San Francisco

In Canada: Prest-O-Lite Company of Canada, Ltd.  
Toronto, Ontario

THE BEST LIGHT FOR ALL HEAVY-DUTY TRUCKS



## Make the dark hours yield a profit

YOUR trucks are valuable pieces of machinery and like all machinery they are not profitable when idle.

If darkness is keeping your trucks from working, or if poor lighting equipment is slowing them up, it would be the best kind of good business to equip them with Prest-O-Lite.

Prest-O-Lite equipment will enable your drivers to proceed safely after dark. It turns idle hours into profitable hours. It speeds up business.

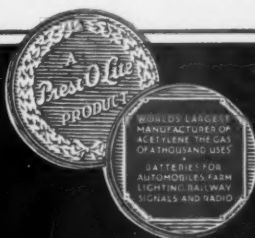
And it costs so little. The installation cost is low and the upkeep is low.

### To Truck Dealers

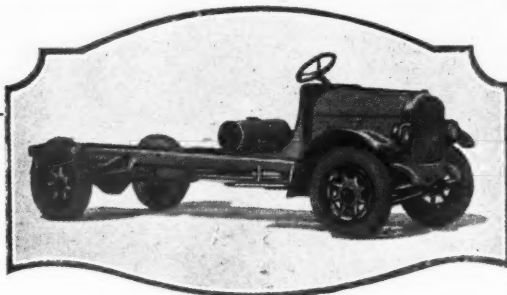
Your customers look to you for equipment advice. Guarantee them absolute lighting satisfaction by selling them Prest-O-Lite Gas. Its faithful performance makes friends for you. By keeping Prest-O-Lite Gas in stock, you build up a profitable business in tank exchanges. Write for our dealer proposition.

# Prest-O-Lite Gas

THE BEST LIGHT FOR ALL HEAVY-DUTY TRUCKS







**T**HESE five outstanding Lehigh selling advantages are offered by no other competitor. They are nowhere nearly approached.

The two-ton Lehigh ... weighs 25.6 lbs. per H.P. less than the average two-ton unit.

... Is stronger—Alloy steels are used in place of ordinary carbon steel. Steel castings in place of malleable iron.

... Has bigger brakes—with one square inch of braking resistance for every  $7 \frac{1}{5}$  lbs. of chassis weight.

... Speed—45 miles per hour.

... Costs \$1001 less than the average two-ton truck.

You could not ask for more, we could not afford to offer less. Write for our sales proposition.

*Increased rubber prices necessitate an increase in the Lehigh price—from \$1695 to \$1795. Still far below the average.*

## The Lehigh Company

Allentown, Pa.



2-Ton  
4-Cylinder  
Model



**\$1795**  
f. o. b. Allentown





## The Great and Growing Popularity of Fisk Transportation "Fillerless" Cords is Bringing Big Rewards to Fisk Dealers

Why not be one of the dealers to benefit from the  
real demand for this great new business tire?

Since its announcement only a few months ago large  
bus and truck fleets as well as smaller operators  
have changed to Fisk Transportation "*Fillerless*"  
Cords exclusively.

The large, continuous advertising for 1926 already  
is creating new users. Your opportunity to profit  
was never better. Write us now for full information  
on the Fisk Truck Tire Franchise.

### The Fisk Tire Company, Inc.

Chicopee Falls

Massachusetts

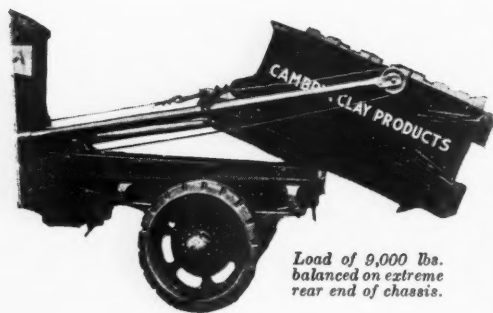






*Strength so accurately proportioned that it gives the utmost pay load for its weight.*

Only in the  
Grammm-Kincaid Truck do you  
find the new, advanced, standard-  
ized design of B. A. Grammm. The  
result—simplified service, a 25%  
saving....Remember! in no other  
unit, regardless of its name, are these  
new, cost reducing advantages  
available....

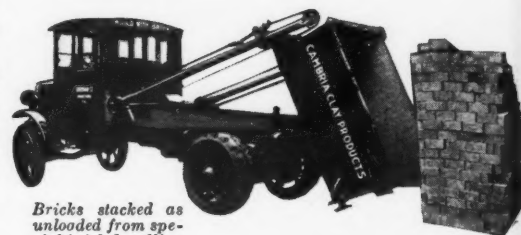


*Load of 9,000 lbs.  
balanced on extreme  
rear end of chassis.*

IF you desire this kind of owner enthusiasm about the truck you sell . . . . "I have used this four-tonner, equipped with special brick handling body, and it has given me a new conception of power. Delivered a load of 1500 bricks (approximately 9000 lbs.) in the Squirrel Hill district, Pittsburgh, but once did I use the second speed gear, everywhere else using third speed gear and high, not even a chance of using the lower range. I now believe that I've got the most powerful truck on the road!" (name on request). . . if this is the kind of advertising you believe will sell trucks in your territory write today, right now, for full details of our unusual sales proposition.

GRAMM & KINCAID  
MOTORS, Inc., LIMA, Ohio.

*Watch for announcement of new  
Grammm-Kincaid bus.*



*Bricks stacked as  
unloaded from spe-  
cial brick handling  
body.*

## Grammm & Kincaid Motor Trucks

MEMBER OF MOTOR TRUCK INDUSTRIES, INC., OF AMERICA

"there's money  
in that"

"I'll try that  
myself"

"that's  
us!"

"that's  
an  
idea"

"great!"

## a book you'll want ~ free!

ONCE a month Johns-  
Manville issues a large  
handful of ideas to garagemen  
and dealers, between the covers  
of the "Hand Out." You will  
find many stories of success  
and short-cuts to profit in this  
publication whether your job  
is at the bench or in the office.

It is free to mechanics,  
garagemen and dealers.

### JOHNS-MANVILLE

292 Madison Ave. at 41st St., New York City  
Branches in 62 Large Cities  
For Canada:  
Canadian Johns-Manville Co., Ltd.  
Toronto



This coupon will  
bring you the  
"Hand Out"  
every  
month

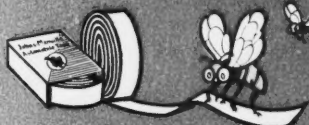
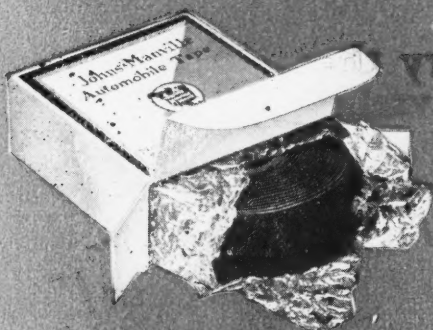
JOHNS-  
MANVILLE  
INC.

292 Madison Avenue  
N. Y. C.

Please send me once a  
month your new publication the  
"Hand Out".

Name \_\_\_\_\_

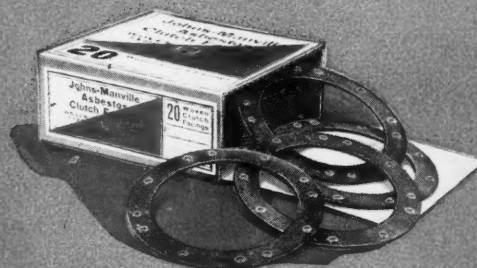




Good tape like good honey is sticky. That's Johns-Manville Automotive Tape—sticky always. It is strong and will not fray. We guarantee it for one year.



Johns-Manville Seigelite Sheet Packing resists the action of oil, water, gasoline, through years of usefulness. Especially recommended for gasketing water manifolds, differential housings, carburetors, etc.



What a grip! Johns-Manville Clutch Facings fit disc clutches of all standard American cars. Order from your distributors' stock when needed.



The hero of 12,000,000 explosions! Gasketing a cylinder head for a couple of years is all a part of the job which Johns-Manville Service Sheet Packing does so well.



Curbing 25 horse-power! That's the every-other-minute performance of Johns-Manville Asbestos Brake Lining in stopping the average car in traffic. Brakes are safer and last longer with this dependable lining.



# JOHNS-MANVILLE

Asbestos Brake Lining,  
Clutch Facings, Packings,  
etc.







# RESILIENCY TRACTION MILEAGE SAFETY

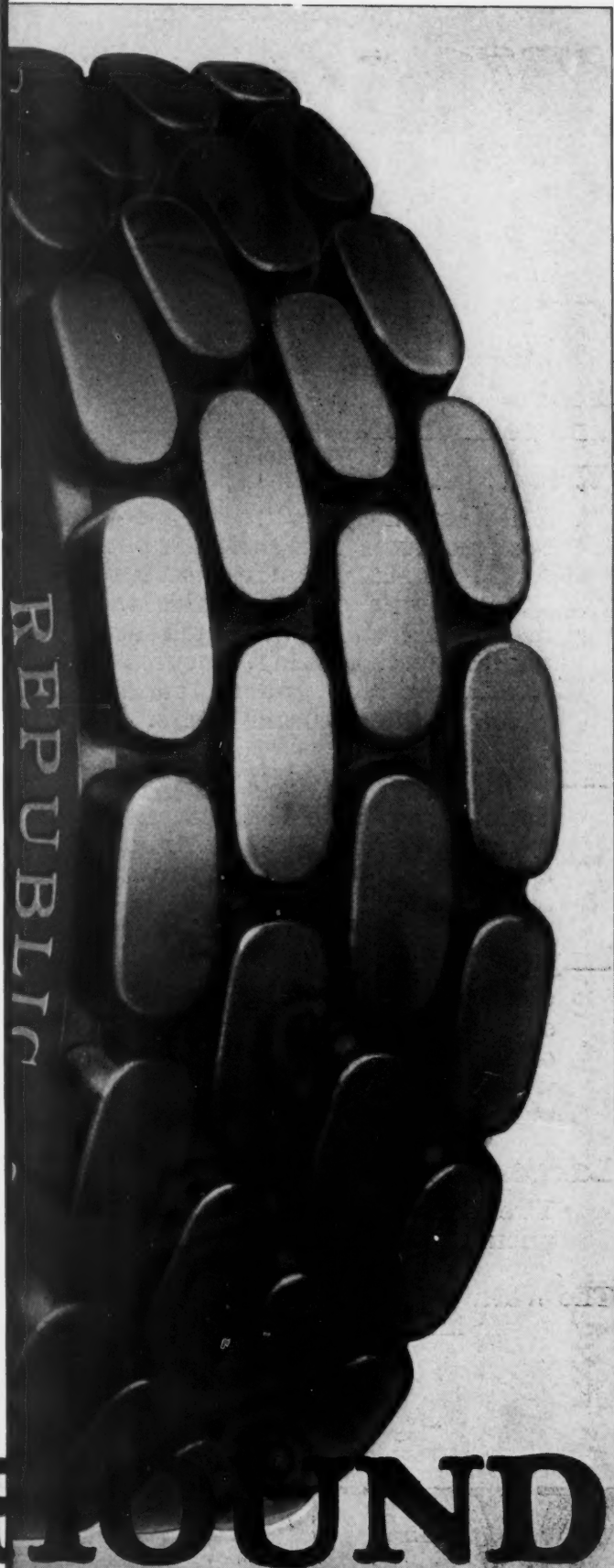
Base your selection of truck tires on one or all of these very essential factors, — and, if your judgment is guided, as it should be, by the records of past performance your inevitable choice must be,

**REPUBLIC**  
**STAGEHOUND**  
**TRUCK TIRES**

LEE TIRE & RUBBER CO.

REPUBLIC DIVISION

Factories — Conshohocken, Pa., and Youngstown, Ohio





# White Bus Chassis Model 50-B

**T**HE White Bus Chassis Model 50-B is introduced to meet the changing conditions of passenger transportation.

Embodied in the Model 50-B Bus Chassis are a number of improvements and refinements including—

## **Westinghouse Air Brakes—**

The installation of this type of air brake on rear axle makes it possible to use metal to metal friction surfaces which is the most effective way of dissipating the heat which accompanies severe braking. Insures effective brake control under all conditions and long life for brake liners.

## **An Improved Motor—**

Various mechanical refinements have been made in the engine improving flexibility and smoothness of operation.

## **Improved Oiling System—**

Oil pump capacity is increased to insure plentiful supply of oil to all parts of engine. Large area of fine mesh wire screen removes all dirt particles providing clean oil supply at all times.

## **Larger Tires—**

Tire equipment consists of 34 x 7 pneumatic tires, duals in rear.

## **Improved Rear Axle—**

Double bearings of taper roller type at wheel ends of spindles, with other refinements, designed to meet the most severe conditions of operation.

## **Stronger Frame—**

The 10 inch frame with gusseted cross members provides ample strength and rigidity under all operating conditions.

## **Improved Radiator—**

Heavy cast aluminum shell with removable core. Supported by new design of spherical seat and retained by springs in neat housings above radiator brackets.

## **Easier Steering—**

New and sturdy design of steering gear makes easy steering.

## **Transmission—**

Speed ratios specially adapted to bus operation.

The White Model 50-B Bus Chassis is built with the optional wheelbases of 198 or 230 inches to accommodate bodies seating from 25 to 29 passengers.

*Write for full specifications and a booklet of facts about actual White Bus operations. We shall be glad to send them free.*

THE WHITE COMPANY, Cleveland

# WHITE BUSES

MADE RIGHT — SOLD RIGHT — KEPT RIGHT



*Consider  
These Facts!*



**D**URING 1925 sales of Gruss Air Springs increased 166% over those of the previous year. 10 manufacturers of trucks and buses have adopted Gruss as standard equipment. 6 others offer them as optional. Nearly 150 distributors and service stations located thruout the country are ready to give you instant service if you should need it.

Gruss Air Springs are manufactured and guaranteed by The Cleveland Pneumatic Tool Company, Cleveland, Ohio.

*Distributors! A few desirable locations are open for the right men. Write or wire today.*

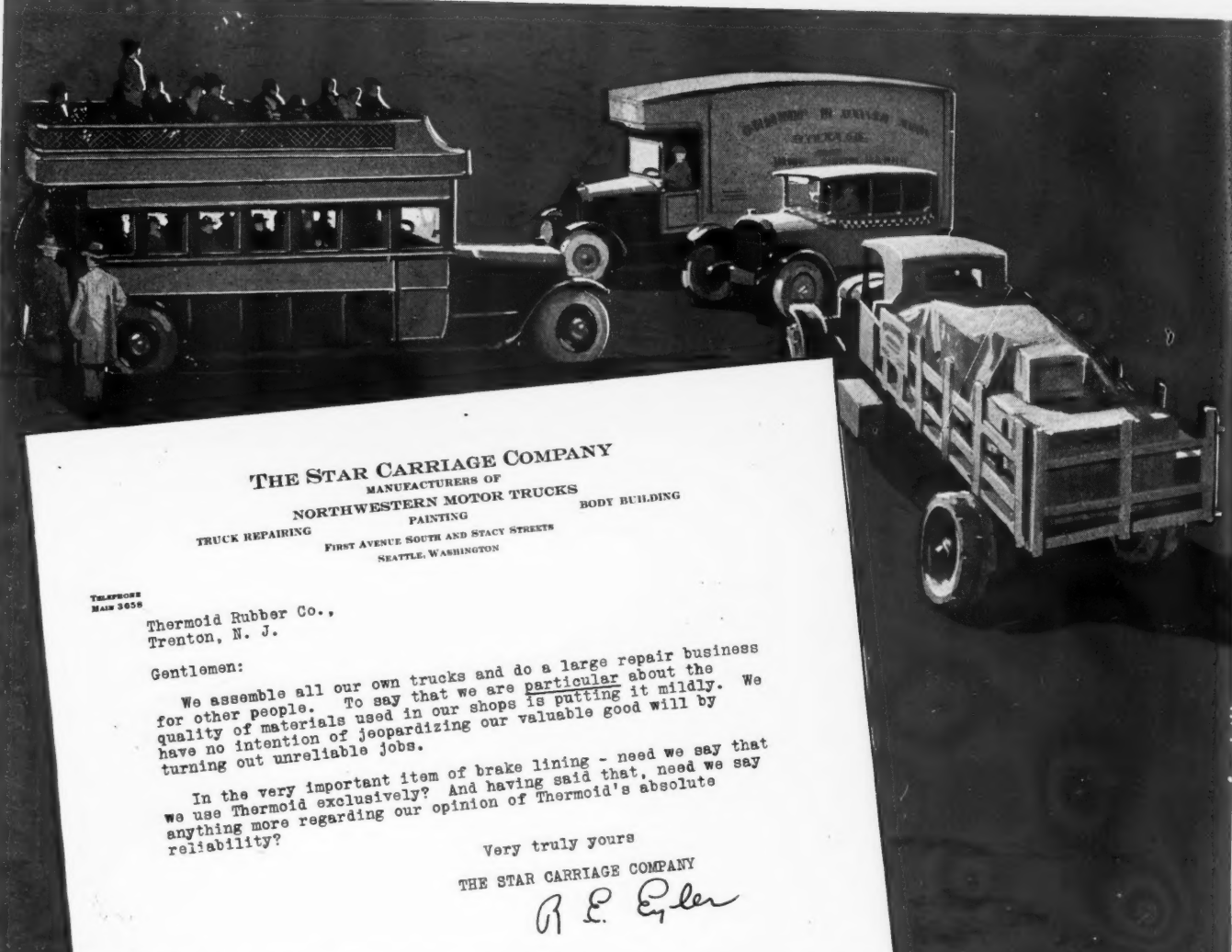
# GRÜSS AIR SPRINGS

*for Trucks, Buses*

*— Passenger Cars —*







**THE STAR CARRIAGE COMPANY**  
MANUFACTURERS OF  
NORTHWESTERN MOTOR TRUCKS  
TRUCK REPAIRING PAINTING BODY BUILDING  
FIRST AVENUE SOUTH AND STACY STREETS  
SEATTLE, WASHINGTON

TELEPHONE  
MAIN 3656

Thermoid Rubber Co.,  
Trenton, N. J.

Gentlemen:

We assemble all our own trucks and do a large repair business for other people. To say that we are particular about the quality of materials used in our shops is putting it mildly. We have no intention of jeopardizing our valuable good will by turning out unreliable jobs.

In the very important item of brake lining - need we say that we use Thermoid exclusively? And having said that, need we say anything more regarding our opinion of Thermoid's absolute reliability?

Very truly yours  
THE STAR CARRIAGE COMPANY  
*R. E. Eyer*

## There are Two Ways to be Sure What a Brake Lining Will Do

**O**NE is to put it on the bus or truck and see. That's risky. The other is to make sure that the lining is marked "Thermoid." That's *safe*.

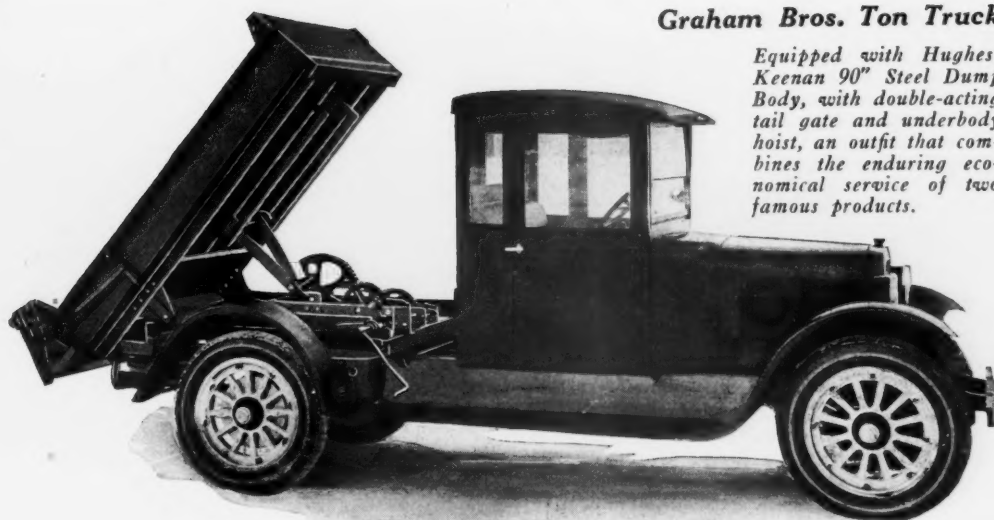
You don't have to investigate any deeper than that name. All the experiment, all the uncertainty, was taken out of Thermoid years ago. Where is the percentage of taking chances, when it costs no more to play safe? It pays to stick to Thermoid.

**THERMOID RUBBER COMPANY, Factories and Main Offices, TRENTON, N. J.**  
*Makers of Thermoid and Rexoid Transmission Lining, Thermoid-Hardy Universal Joints, Thermoid Radiator Hose and Mechanical Rubber Goods*

*The Asbestos  
Brake  
Lining*

**Thermoid**  
*Hydraulic Compressed*  
**Brake Lining**

*For short  
stops and  
long service"*



**Graham Bros. Ton Truck**

*Equipped with Hughes-Keenan 90" Steel Dump Body, with double-acting tail gate and underbody hoist, an outfit that combines the enduring economical service of two famous products.*

## ***Give it the Toughest Jobs***

**T**HE man you sell a Hughes-Keenan Dump Body never needs to baby it. Give it the toughest jobs. Send it crashing over rough roads, dump it as fast as you like, work it day and night. It will outlast the truck that carries it.

For Hughes-Keenan Bodies are made with steel guts that stand the gaff of any job. Heavy steel plates electrically welded, fine cast steel gears to meet brutal strain—in every detail extra strength and endurance. They are made to deliver the utmost service per dollar of purchase price; no break-down, practically no wear-out, freedom from delay and trouble—that's sound, sensible economy.

*For sales that stay sold, equip your trucks with Hughes-Keenan Dump Bodies.*

*Write for the whole story.*

### **A Complete Line of Dump Bodies**

for all makes of light trucks — standard sizes to meet all requirements. Garbage, Gasoline and Oil Tank Bodies. Coal Dump Bodies with underbody hoists or Lift - Dump Hoists.

THE HUGHES-KEENAN CO., Box 21, MANSFIELD, OHIO

# **HUGHES-KEENAN**

## ***Steel Truck Bodies***





## Ten Different Models— to meet every sales condition!

1926 is going to demand—more than ever—that you concentrate, letting go of all but the main issue. If you concentrate on the Buck line of trucks you will find the profit you get you **KEEP**. Buck engineering takes care of that.

With 10 different models, regardless of your trade's demands, you can take care of them. Ten models ranging from  $1\frac{1}{2}$  to  $7\frac{1}{2}$  tons. Six heavy-duty chassis equipped with *7-speed-forward-2-reverse-transmission*, three with 4-cylinder motors and three with 6-cylinder motors.

Four lighter and very speedy mod-

els, two with 4-cylinder motors and two with 6-cylinder motors.

Nationally - known units, engineered to the highest standards, make for economy of maintenance and act as a guard against undue free servicing.

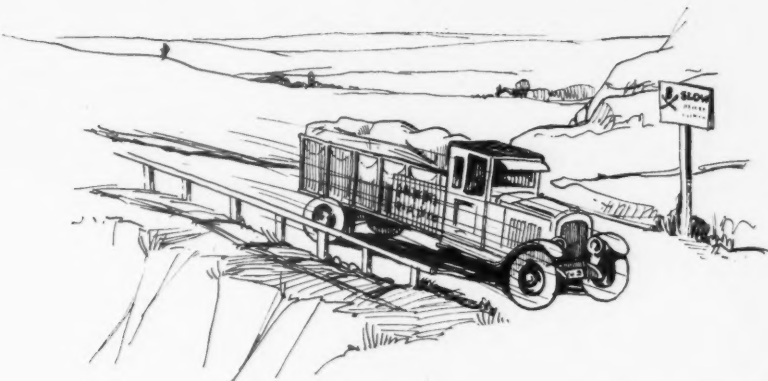
The Buck franchise is backed by a vigorous policy of protection to its dealers. Buck Trucks are sold exclusively through its authorized dealers wherever dealers are available.

You are invited to let us put our proposition before you. No obligation.

The Buck Motor Truck Company  
Bellevue, Ohio, U. S. A.

# BUCK TRUCKS

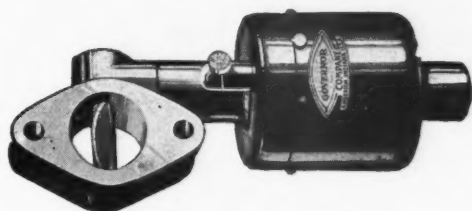
# You wouldn't do this — then why let your trucks?



You wouldn't jump off a cliff just for the fun of it, so why let your trucks run wild over city streets and country roads? Excessive speeds so dangerous to safe carrying, so injurious to truck life, can be easily and positively prevented with Pierce Governors. They breed a public confidence in the trucking service you

offer and at the same time insure low upkeep and longer truck life.

Over 150 manufacturers of motors, buses, trucks and power machinery are satisfied users of Pierce Governors. Their experience in effecting savings may be of interest. There's also some valuable data in free booklet No. 44. Ask for it!



The Pierce Governor Company

Anderson, Indiana

*"World's Largest Governor Builders"*

# Pierce Governors

*"Get the Most from Motors"*







## "Buddy" Stewart

**$\frac{3}{4}$  Ton  
Speed Truck**  
**\$895** chassis

### To Dealers

Here is a rare opportunity to build sales volume quickly.

"Buddy" is an outstanding offering from a quality standpoint. It establishes a new price standard in the delivery truck field.

And "Buddy" is only one of the complete line of quality speed trucks which make the Stewart franchise a valuable asset. Write for particulars.

### Other Models

4 and 6 Cylinder Motors

1 Ton Speed Truck

1½ Ton Speed Truck

2 Ton, 2½-3 Ton, 3½-4 Ton

Also 18 and 25 Passenger

Bus Chassis

All Prices f. o. b. Buffalo, plus tax

"Buddy" is not only a remarkable truck at the price, but a remarkable truck at any price.

It exactly meets light delivery needs in power, capacity, dependable service, long life, low operating cost, and still sells at a lower price than any truck of its size and quality.

It is all truck—not a converted passenger car, not a one-year truck but a truck built to last for years—as good looking as it is reliable.

"Buddy" has a SIX-CYLINDER 40 h. p. Continental motor, remarkable for its gasoline economy and freedom from vibration—it gives 18 to 22 miles to the gallon of gasoline.

Rear springs 50 inches long, 2½ inches wide, 32 x 4 cord tires, insure easy riding comfort. Gemmer steering gear, large efficient brakes make it an easy truck to handle.

Think of the five inch frame, the big ten inch single plate clutch, the sturdy bevel axle. Timken bearings in front and rear axle insure long wear. Wheelbase, 118 inches, suitable for seven-foot body.

All the newest equipment—Zenith carburetor, electric lights and starter. Speedometer, oil gage and ammeter mounted on the dash under a glass panel.

Look it over, point for point, drive it and you will be convinced that "Buddy" is the greatest value on the American market.

# Stewart

MOTOR TRUCKS

STEWART MOTOR CORPORATION — Buffalo, N. Y., U. S. A.

Export Branch: (Dept. 3) 90 West St., New York City



Hydraulic Hoists and Steel Bodies

*Factories:*

DETROIT, MICHIGAN  
SAN FRANCISCO, CAL.  
WINDSOR, ONTARIO  
SOUTHPORT, ENGLAND  
PARIS, FRANCE

*Did you get your copy of our new  
Hoist folder? It's different—Write  
for it.*

Our De Luxe Exhibit at the Good Roads Show was a message of appreciation to Truck Manufacturers and Truck Salesmen for their practical co-operation.

It was a sincere effort to visualize Wood ideals of design, workmanship and material which have won Wood products their outstanding position in the Hoist Industry. It demonstrated to practical road builders the simplicity of Wood Hydraulic Hoists as an indispensable factor in every good roads construction program.

**Wood Hydraulic Hoist & Body Co.**

*World's Largest Builder of Hydraulic Hoists and Steel Dump Bodies*  
7944 Riopelle Street  
Detroit, Michigan





A differential casting with two feeders to insure freedom from shrinks and hidden defects. In some cases the riser metal weighs twice as much as the casting and ranges from that extreme down to half the weight. These extra precautions to insure sound castings often account for the slight difference in cost between Certified Malleables and the ordinary kind.

**Certificate Holders for the Quarter  
Ending Sept. 30, 1925**

Albany Malleable Iron Co.	Voorheesville, N. Y.
Albion Malleable Iron Co.	Albion, Mich.
American Chain Co.	Bridgeport, Conn.
American Malleable Castings Co.	Marion, O.
American Malleables Co.	Lancaster, N. Y. and Owosso, Mich.
Badger Malleable & Mfg. Co.	South Milwaukee, Wis.
Baltimore Malleable Iron & Steel Casting Co.	Baltimore, Md.
Belle City Malleable Iron Co.	Racine, Wis.
Chain Belt Co.	Milwaukee, Wis.
Chicago Malleable Castings Co.	West Pullman, Chicago, Ill.
Columbia Malleable Castings Co.	Columbia, Pa.
Columbus Malleable Iron Co., The	Columbus, O.
Danville Malleable Iron Co.	Danville, Ill.
Dayton Malleable Iron Co.	Dayton, O., Ironton, O., and Canton, O.
Deatur Malleable Iron Co.	Decatur, Ill.
Devlin Mfg. Co., Thomas	Philadelphia, Pa.
Eastern Malleable Iron Co., The	Naugatuck Malleable Iron Works, Naugatuck, Conn.; Bridgeport Malleable Iron Works, Bridgeport, Conn.; Troy Malleable Iron Works, Troy, N. Y.; Wilmington Malleable Iron Works, Wilmington, Del.; Vulcan Iron Works, New Britain, Conn.
Erie Malleable Iron Co.	Erie, Pa.
Federal Malleable Co.	West Allis, Wis.
Fort Pitt Malleable Iron Co.	Pittsburgh, Pa.
Fraser & Jones Co.	Syracuse, N. Y.
General Electric Co.	Erie, Pa.
Glancy Malleable Corporation	Waukesha, Wis.
Illinois Malleable Iron Co.	Chicago, Ill.
Iowa Malleable Iron Co.	Fairfield, Ia.
Kalamazoo Malleable Iron Co.	Kalamazoo, Mich.
Laconia Car Co.	Laconia, N. H.
Lakeside Malleable Castings Co.	Racine, Wis.
Link-Belt Co.	Indianapolis, Ind.
Marion Malleable Iron Works	Marion, Ind.
Moline Malleable Iron Co.	St. Charles, Ill.
National Malleable & Steel Castings Co.	Cleveland, O., Chicago, Ill., Indianapolis, Ind., Toledo, O., E. St. Louis, Ill.
Northern Malleable Iron Co.	St. Paul, Minn.
Northwestern Malleable Iron Co.	Milwaukee, Wis.
Peoria Malleable Castings Co.	Peoria, Ill.
Pittsburgh Malleable Iron Co.	Pittsburgh, Pa.
Rhode Island Malleable Iron Works	Hillgrove, R. I.
Rockford Malleable Iron Works	Rockford, Ill.
Ross-McNab Foundries, The	Chattanooga, Tenn.
St. Louis Malleable Casting Co.	St. Louis, Mo.
Saginaw Malleable Iron Co.	Saginaw, Mich.
Standard Malleable Castings Co.	Terre Haute, Ind.
Stowell Co., The	South Milwaukee, Wis.
Superior Steel Castings Co.	Benton Harbor, Mich.
Symington Co., The	Rochester, N. Y.
Temple Malleable Iron & Steel Co.	Temple, Pa.
Terre Haute Malleable & Mfg. Co.	Terre Haute, Ind.
Trenton Malleable Iron Co., The	Trenton, N. J.
Union Malleable Iron Co., The	E. Moline, Ill.
Vermilion Malleable Iron Co.	Hoopeston, Ill.
Wagner Malleable Castings Co.	Hammond, Ind., and Beloit, Wis.
Warren Tool & Forge Co.	Warren, O.
Webster Mfg. Co., The	Chicago, Ill.
Weymouth Malleable Iron Co.	Milwaukee, Wis.
York Mfg. Co.	York, Pa.
Zanesville Malleable Co.	Zanesville, O.

## Plenty of Feeders and Risers Necessary to Produce Good Malleable Iron

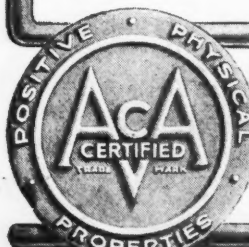
To many persons "Feeders and Risers" are just technical foundry terms, not considered of vital importance in the purchase of Malleable Iron. Yet, the difference between good and poor malleables is often the difference between the adequate use and the skimping of Feeders and Risers.

Buyers of *Certified Malleables* can be reasonably sure that their castings will be sound and solid throughout, that they will be free from shrinks and hidden defects; that every casting will be malleable in fact as well as name.

For every foundry listed on this page is under the exacting metallurgical supervision of the association's consulting engineer:—a man who guards consumers' interests by insisting that certain high standards of quality and uniformity must be maintained.

Proper Risers and Feeders to prevent shrinks and hidden defects is just one of a dozen production items required by this "Sentinel of Science."

AMERICAN MALLEABLE CASTINGS ASSOCIATION  
UNION TRUST BUILDING CLEVELAND, OHIO



# CERTIFIED-MALLEABLE CASTINGS



## Dependability!

You must have it in  
your truck axles if you  
are to operate at a profit

**E**ATON builds *dependability* into every inch of every axle that is produced at the Eaton plant. Unusual care in design and manufacture, and minute inspection of materials and parts assure a finished product that never fails when put to its job.

You'll like the brutal strength of Eaton Axles—strength to carry the load easily and to withstand the stiffest road shocks. And you'll like the ability of Eaton Axles to transmit the power smoothly at any speed.

Such characteristics—the result of Eaton's engineering skill and careful workmanship—have given Eaton Axles their wonderful record for year-in, year-out dependability on many of America's finest motor vehicles.

*Insist on Eaton Axles for all your trucks. They'll save many expensive delays and heavy repair cost.*

THE EATON AXLE & SPRING COMPANY  
Cleveland, Ohio

# EATON AXLES

*The Eaton Organization also produces the famous Eaton Bumpers and Eaton Springs*

# SPRING~PERCH CO.

## STRATFORD, CONN.



Unaffected by Giant Road Blows

**S**PRING-PERCH Springs are nearly 80 years — *and knows how.* made from rigidly tested alloy steels. Under thermostatic pyrometer control, specially designed furnaces harden and temper these high-grade steels the Spring-Perch way.

Our organization has been making springs for

Clarence F. Tollzien  
Direct factory representative for Michigan and Ohio  
Office: 5-251 General Motors Building,  
Detroit, Mich.  
Telephone—Empire 7298  
Detroit

pension for your new trucks or buses let us give you the benefit of our wealth of experience in solving your spring problems. This entails no obligation on your part. Send us your specifications.

**SPRING-PERCH COMPANY**

*Makers of Springs Since 1843*

STRATFORD

CONNECTICUT

FACTO



# —St. Paul—

VERTICAL AND UNDERBODY  
HYDRAULIC HOISTS



A fleet of 6 Hug trucks equipped with St. Paul Light Duty underbody Hydraulic Hoists  
to build good roads in Florida

## All hoists are good hoists—

But only in St. Paul Hydraulic Hoists will you find a combination of Hydraulic and mechanical principles which make a hoist ideally suited to universal application.

St. Paul Hoists are so designed that they do not crawl on the chassis frame and they do not impose any strain on the frame other than one of direct lift.

Most important, however, is the fact that St. Paul Underbody Hoists lift the load ahead of the load center, thereby requiring less power.

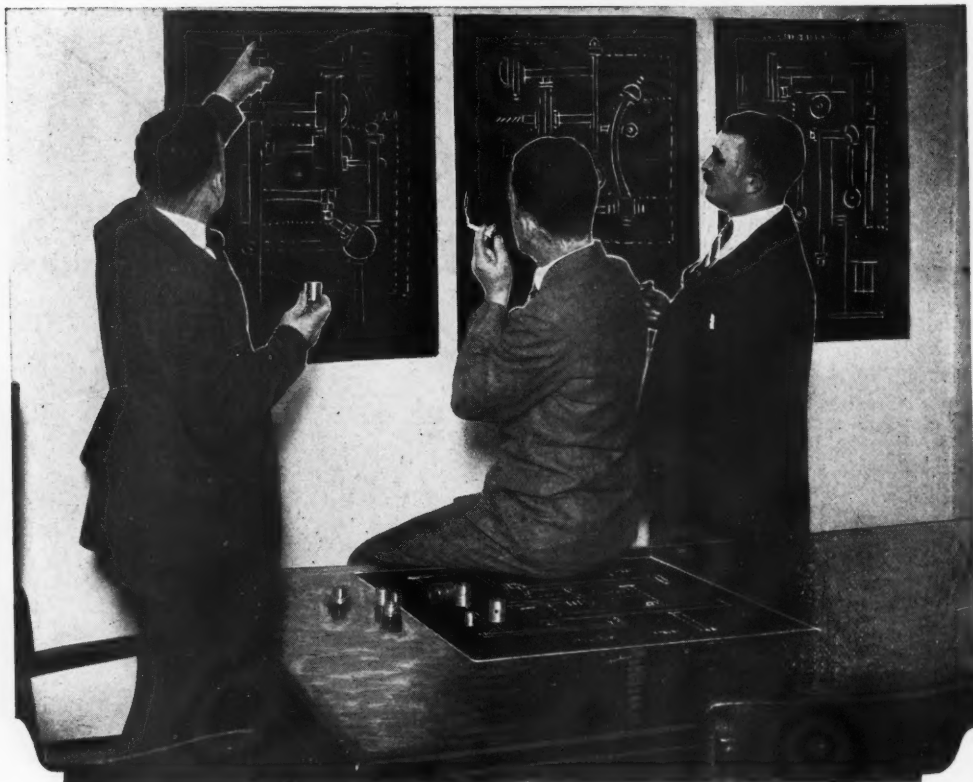
*Make sure your next Hoist is a St. Paul*

## HYDRAULIC HOIST MANUFACTURING CO.

FACTORIES at St. Paul, Minnesota

DISTRIBUTORS and SERVICE STATIONS Everywhere

Write for Name and Address of One Nearest You



## Car Builders' Specifications Tell the Story

**T**HE motor car owner rightfully expects a replacement part of equal quality to the part originally installed by the Car Builder.

When Johnson Bushings are installed his interests have been safe-guarded, because Johnson Bushings are standard factory specifications on many of the finest motor cars, trucks, motorcycles and aeroplanes.

And we guarantee that Johnson Bushings are of equal quality or better than the bushings they replace.

When you consider that the bushing cost is but a small item in the repair bill, isn't it good policy to sell your dealers the very best bushings that money can buy?

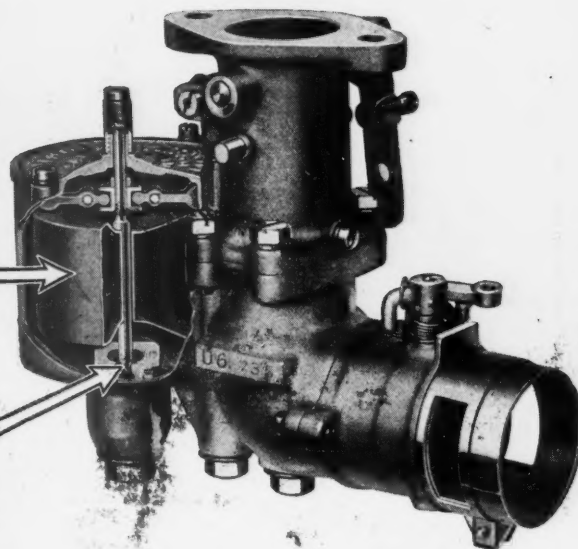
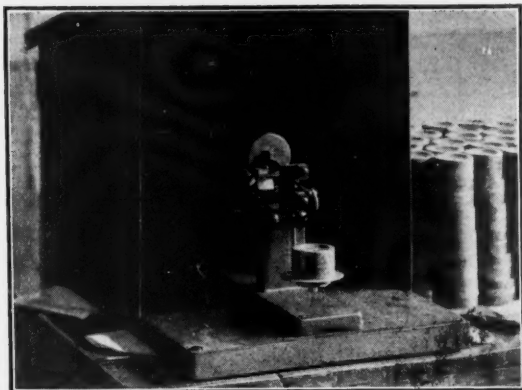


**JOHNSON**  
STANDARD QUALITY  
**BUSHINGS**

**JOHNSON BRONZE CO.**  
New Castle, Pa.

**ZENITH**

## The Zenith Float Mechanism and the Tests



(Upper) Zenith floats being weighed. A variance of one gram—1-28 of an ounce—from the specified weight causes them to be scrapped.

(Lower) Zenith needle points being inspected under a microscope which magnifies 144 diameters. This inspection discloses any imperfections however minute, which may remain after grinding.

**ZENITH**  
CARBURETOR

*There is a Zenith, tested  
and proven, for every motor.*

With such modern instruments  
and such rigid inspection to guard  
the gas flow, a Zenith must be  
frugal—it is no wonder it is known  
as the economy carburetor.

And yet the speediest and most  
powerful engines are Zenith-  
equipped.

## ZENITH-DETROIT CORPORATION

*Manufacturer of*

**ZENITH CARBURETORS**

**DETROIT**

**MICHIGAN**

*Branches:*

**NEW YORK**

**CLEVELAND**

**CHICAGO**

*Over 1200 Service Stations*





## Profit is Their Proof

Goodrich Semi-Pneumatics inspire confidence in the look of them . . . . An experienced truck operator foresees their broader working range, their practical anti-skid and the cushioning feature . . . . But performance rendered in terms of profit clinches conviction . . . . Truck owners have found that they pay, and they say so . . . . Ask a Goodrich Distributor to show you their letters.

[To round out economical and efficient service in the operation of trucks and buses, Goodrich provides the famous De Luxe solid smooth type, Goodrich Semi-Pneumatics and Goodrich Silvertown Heavy Duty Cords.]

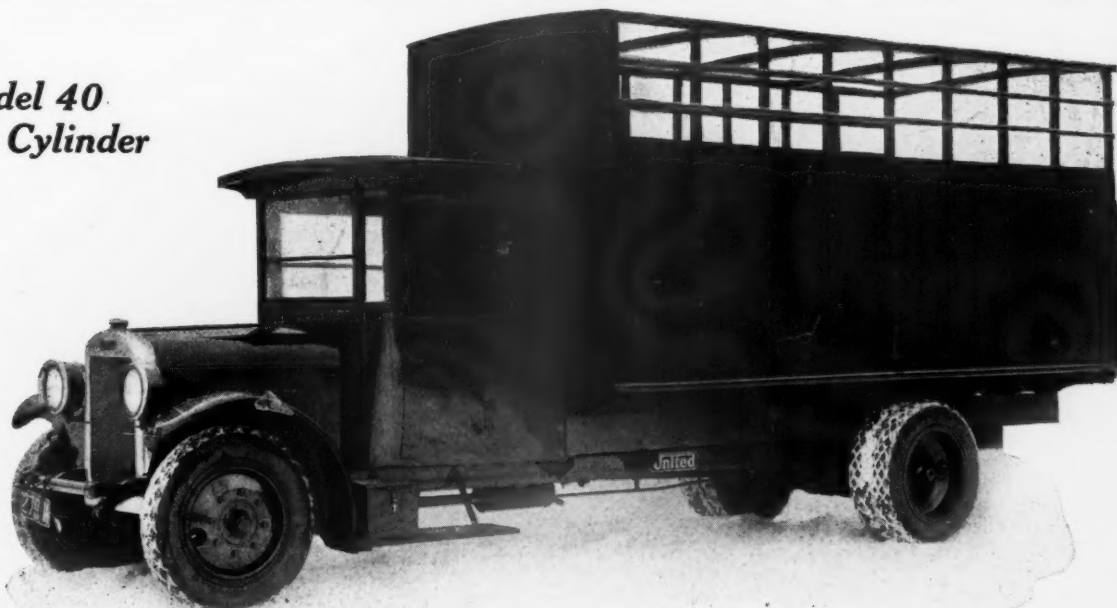
THE B. F. GOODRICH RUBBER COMPANY, Akron, Ohio  
In Canada: Canadian Goodrich Company, Ltd., Kitchener

# Goodrich

"BEST IN THE LONG-RUN"

## Semi-Pneumatic TRUCK TIRE

**Model 40  
Six Cylinder**



# United

**TWENTY-FIVE INCHES  
From Load to Road**

## **Which Means:—**

- Easier loading.**
- Better load distribution.**
- Easier riding.**
- Better brake action.**
- Less side-sway.**
- Less skidding.**
- Longer life to chassis.**

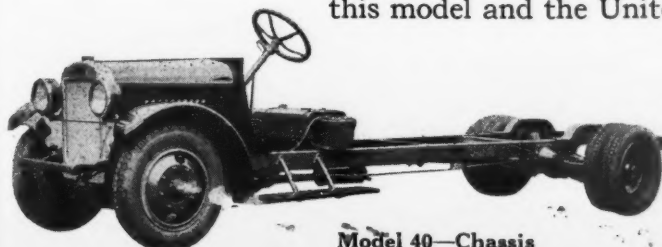
## **All of Which Mean:—**

**Quicker, safer and cheaper transportation.**

The United Model 40 is a six cylinder powerful, fast and dependable motor truck, especially adapted to cross country hauling.

It can be furnished in any required wheelbase. It has United quality built in, from radiator to rear axle.

Send for detailed specifications and dealer information on this model and the United complete line.



**Model 40—Chassis**

**United Motors Products Co.**

**Grand Rapids**

**Michigan**

*"Quality transportation  
units since 1910"*



One section of the Globe Ice Cream Company's fleet of Garford trucks

## Splitdorf equipped

**T**HE Globe Ice Cream Company, Los Angeles, in commenting on its fleet of more than twenty Garford trucks, said: "At the present day one of these trucks has traveled 16,000 miles and has never yet caused trouble or delay in the delivery schedule or broken down on the road. The Globe Ice Cream Company has never had to tow in one of these trucks as yet, nor has anyone else had to tow them in."

The record of this fleet of trucks, every one of which is equipped with Splitdorf Magneto Ignition, is indicative of the extreme **DEPENDABILITY** that Splitdorf Ignition insures in the day-in and day-out operation of trucks, buses, and tractors.

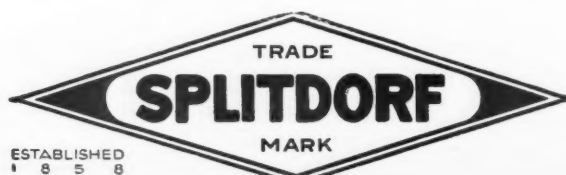


The Splitdorf Model SS Magneto which is regular equipment on Garford trucks

### SPLITDORF ELECTRICAL COMPANY

392 High Street : Newark, N. J.

Subsidiary of  
Splitdorf-Bethlehem Electrical Company







## Increasing Profits!

Approximately four hundred ninety-two thousand commercial vehicles were produced in 1925. Steady increases are anticipated for 1926 and 1927. The owners, in greater numbers as each year goes on, are buying on a more intelligent basis. They are seeking units that will earn money for them and do it over a long period of time. To accomplish this, operating and maintenance expenses must be reduced. Garford has concentrated their efforts in producing motor trucks ranging in size from one to five tons, and motor buses of seventeen to thirty passengers capacity, that will stay out on the road—where they can *earn*, for only can a greater measure of economy be put into a commercial vehicle through the ceaseless effort to produce units—"Quality Built."

*Write or wire for details of a franchise that will increase your profits*

**THE GARFORD MOTOR TRUCK COMPANY**  
709 WAPAK ROAD LIMA, OHIO



**FREE:** Something to help you make greater profit selling tires. A real money making idea. Read details below. Find out about this . . . today.

# A "Red Hot" Opportunity plus —these 3 big advantages

*A new sales policy . . . a special demonstration proposition . . . sound financial strength. This tells how to make profits double those you now get. Read details here:*

By RAY H. PADDOCK

**H**ERE'S a tire—a truck and bus cord—that we actually help you sell! And you make *just double* your normal profit.

\* \* \* \*

There's a Bus or Truck Fleet account that you'd like to get. This gives you a new chance—to *land that business*.

Because today, *you can demonstrate this tire* without obligation to them or risk to yourself.

**Don't worry about capital!**

*You don't have to worry about money or limited finance on this proposition!* If conditions are right—the prospect is right—we make arrangements for absorption of credit.

Any risk there is, is *our risk*. And we're willing to take it because we *believe in this tire*—made it—know what's in it . . .

The tire itself is built up to quality regardless of cost. Ten ply, finest long staple cord fabric—fulled 1¼" staple.

By frictioning process with heavy steel calenders, rubber is driven through the fabric—*completely impregnated*.

*Double breaker—double cushion—covered with the most costly tread we ever put on an automobile tire!*

The 36 x 6 weighs 71 lbs. without flap or wrapper. Compare this in weight—in size, appearance and durability with any tire you've ever handled. **And remember:**

You can't get mileage out of a tire by writing it in . . . you've got to *build it in*.

**Act on this . . . TODAY.**

Through concentration on volume, low distribution cost, we are able to offer this really superior tire at a *strictly competitive price*.

Write me—*today*. Only one dealer in each town can work this proposition. You must act quickly—*right now!* At least find out about this unusual opportunity—how it will help you—to more sales, greater profit.

RAY H. PADDOCK



**MURRAY RUBBER COMPANY, Trenton, N. J.**

## The Contractor's Choice

# SCHACHT

## Ten Speed TRUCKS

The work of the average excavating contractor affords a most exacting test of any motor truck. Necessity of operating under difficult conditions, seldom encountered by trucks traveling beaten paths, calls for transportation equipment of exceptional power and capacity.

It is therefore a tribute to the merit of SCHACHT TEN SPEED TRUCKS that so many prominent contractors have chosen SCHACHT fleets to handle their most strenuous work.

Many important and exclusive features of SCHACHT TEN SPEED TRUCKS are responsible for this preference. Unusual durability, ample reserve of power, Ten Speed transmission giving both flexible and fast handling are only a few of the important advantages which insure increased earning capacity.

From 1 to 7½ ton capacity. Folder C will bring facts and figures of interest to every truck distributor.

*Below:*

*This fleet of SCHACHT TEN SPEED, 7½ ton, dump body trucks is owned and operated by Otto Civil, New York subway contractor.*

**The G. A. Schacht Motor Truck Company**

*"Pioneers in Motor Transportation"*

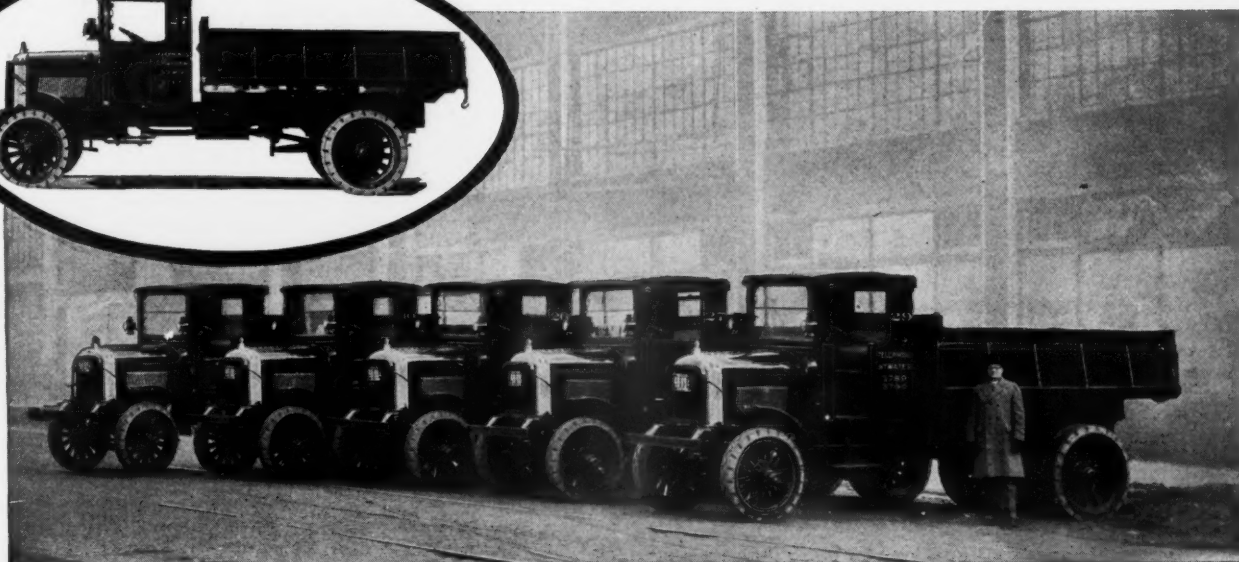
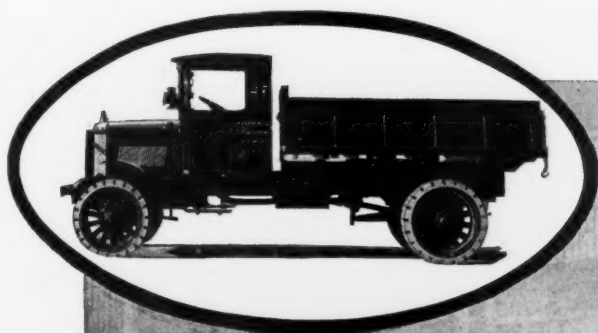
Cincinnati, Ohio

*New York Branch:*

Van Dam, Rockdale and Nelson Sts.  
Long Island City

*New Jersey Branch:*

400 New St., Newark





# DUPLIX

WHERE DUPLIX SERVES IT SAVES

## Owner Experiences Govern Dealer Measurements of Duplex Values

The Duplex "Four Wheel Drive" was the first super-powered motor truck, and it is still first.

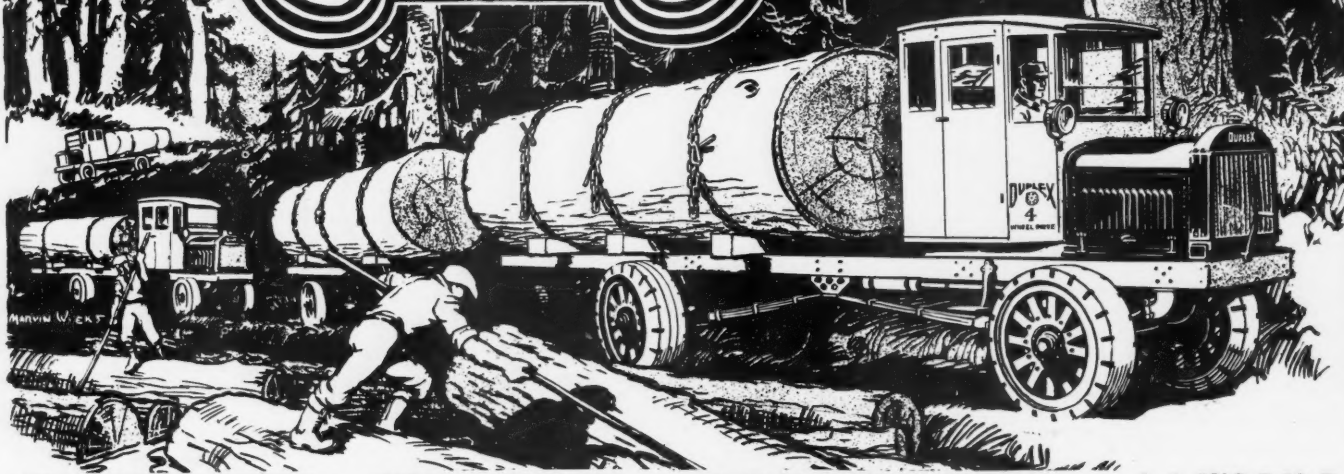
One owner writes, "We had to have a truck that would climb 3000 feet in five miles. The fact that we purchased five Duplex 'Four Wheel Drive' should convince anyone what we think of them."

"We believe that this is the most powerful truck built today, and can honestly recommend it where extraordinary power and performance are required."

A page from any Duplex owner's diary contains sufficient evidence to convince dealers who want a reliable line that Duplex has untold merit.

*Manufacturers of*

Rear Drive Motor Trucks of 1, 1½, 2 and 3 ton capacity. Also the famous 3½ ton "Four Wheel Drive Truck."



**DUPLIX TRUCK COMPANY • LANSING MICHIGAN**

# LONG

Long Radiators are  
performing satisfac-  
torily on the Reaper-  
Thresher of the Inter-  
national Harvester Co.

THE LONG MANUFACTURING  
COMPANY  
DETROIT MICHIGAN



LONG PRODUCTS • AUTOMOTIVE CLUTCHES *and* RADIATORS



## For average conditions the bus with a capacity of 15 to 20 passengers can be operated most profitably

**P**ROFITABLE operation of motor busses depends largely upon two things: first, the selection of equipment with the proper capacity and second, upon the mechanical characteristics of the bus and its power plant.

Experience has demonstrated that, for average conditions, the bus of medium capacity (about 20 passengers) will give the best fare return on the investment.

In Bus Models 80 and 81, the Republic Motor Truck Company combines this ideal average capacity with the results of long experience and thorough study of bus requirements.

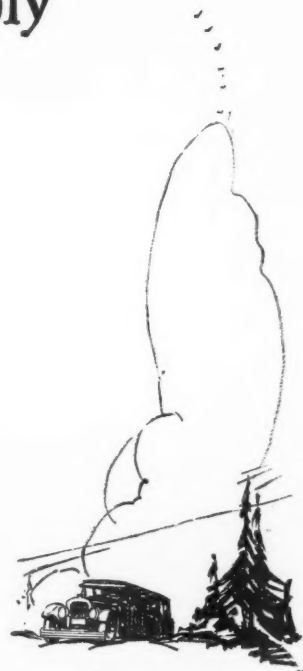
The execution of every detail is evidence of this experience and knowledge which is further demonstrated in the use of Lycoming Motors for both models.

LYCOMING MANUFACTURING COMPANY  
Makers of Fine Fours, Sixes and Eights-in-Line  
WILLIAMSPORT :: PENNSYLVANIA

# LYCOMING

## Motors

*Years Ahead in Automobile Motor Efficiency*





# TIMKEN



## 333 Timken-equipped busses for Newark, N. J.

*The largest single bus order ever placed*

The Public Service Railway Company of Newark, N. J., has placed with the Yellow Truck & Coach Manufacturing Company, of Chicago, an order for 333 single-deck, dual-drive gas-electric busses. This represents an expenditure of over \$3,000,000 and, so far as can be determined, is the largest individual order ever placed for motor busses.

Each of the vehicles will be equipped front and rear with Timken Axles, specially designed and built for Yellow Coaches.

The selection of axles was based on the simplicity and dependability of the worm drive principle, plus Timken painstaking workmanship.



THE TIMKEN-DETROIT AXLE CO., DETROIT, MICH.

# AXLES



### Walker Facts for Truck Dealers

¶ Walker Electric Trucks are made by one of the six oldest and leading truck companies. No truck outranks the Walker in quality or earning capacity on city routes. It gives ten to twenty years of profitable service—has an astonishing record of reliability in all weathers and under all city traffic conditions. It enables the owner to organize his city route deliveries and adhere strictly to schedule without maintaining a large margin of substitute equipment and its attendant maintenance and garage costs.

¶ In final cost, Walkers are a highly profitable investment. Snow and blizzards do not stop them. They never overheat in summer. Their mileage exceeds practically all city route requirements. They climb the hills of San Francisco as easily as they negotiate the streets of New York. They require almost no outlay and trouble for emergency repairs and maintenance. Extra thousands of tire miles. Easy to handle and drive. Silent and clean. Enable drivers to dress and function as salesmen. Plenty of speed for all city conditions—quick pick-up makes them fastest in congested traffic. Cover many-stop routes more rapidly than gasoline or horse equipment.

¶ Mechanically the Walker Electric is simply a compact and powerful electric motor mounted in the center line of the rear axle and meshing with balanced idler gears that rotate in oil, meshing with the inner rim of either rear wheel. Only nine moving parts, all rotating—a simpler, more compact, more durable and satisfactory motor drive.

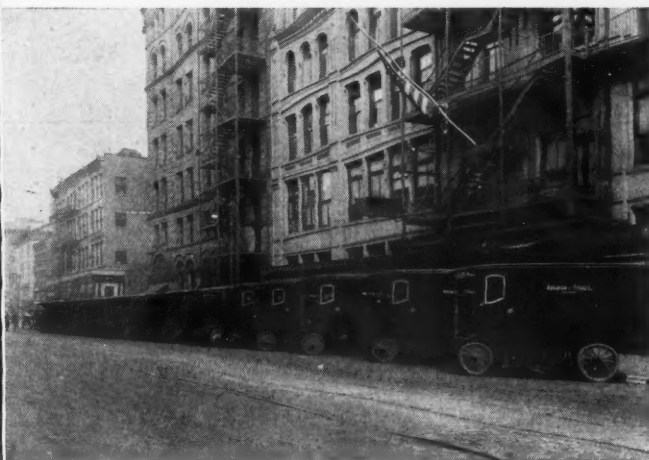
¶ Beautiful and exclusive body designs complete the effect of quality. A fleet of clean, silent Walkers are prestige-building posters that advertise the business to an enormous circulation monthly.

¶ Manufactured by a company which enjoys a high reputation for well financed stability and prompt service.

¶ An overwhelming percentage of all that have bought one Walker truck have re-ordered, some as many as 89 times. Multi-million dollar Walker fleets are operated by several users. And a complete list of Walker owners reads like a "Blue Book" of American business.

¶ There are still some good dealerships open for dealers who can qualify. Write us for specific information.

Abraham & Straus, Inc., of Brooklyn, placed an initial order in 1923 for 28 1-ton Walkers for parcel delivery



## Walker Dealers Get Many Repeat Orders

Looking beyond the appeal of low first cost—and applying sound accounting that includes every expense factor—hundreds of the best known concerns in America have proved to their own satisfaction that they want more and more Walker Electric Trucks.

Walkers maintain their delivery schedule the year round, making substitute trucks superfluous and enabling each truck, each route and each man to earn more profits; that's why Walker dealers build profitable repeat business.

**WALKER  
VEHICLE COMPANY**  
Leading Manufacturer of Electric Street Trucks  
**CHICAGO**

# WALKER ELECTRIC TRUCKS

LOWEST TRUCKING COST ON CITY ROUTES



Above, the fleet of the Wagner Baking Co., Detroit, Mich. Fafnir Ball Bearings used for replacements.

## Truck builders prefer Fafnir— Let their experience guide you in bearing replacements



Single row radial, the standard bearing for automotive service



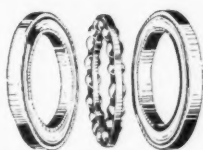
Double row radial, for carrying additional radial load without enlarging the bearing diameter



Single row radial thrust, for radial load as well as end thrust



Double row radial thrust, carries both heavy radial and thrust loads



Thrust bearing

Builders of trucks know ball bearings. They have again and again compared, tested and even abused them to see what particular make of bearing can always be relied on to give service in keeping with the high quality of their trucks.

And the fact that so many of the leading manufacturers are using Fafnirs is a most convincing reason why it will pay you, also, to standardize on Fafnirs for replacements. Only in this way can you be sure of the dependable transportation

which the truck maker intended you should have.

Furthermore, you can obtain Fafnir bearings without delay. Fafnir distributors are accessibly located in all parts of the country. They carry a complete stock of replacements—a bearing for your every replacement need.

### THE FAFNIR BEARING CO.

Makers of high grade ball bearings—the most complete line of types and sizes in America

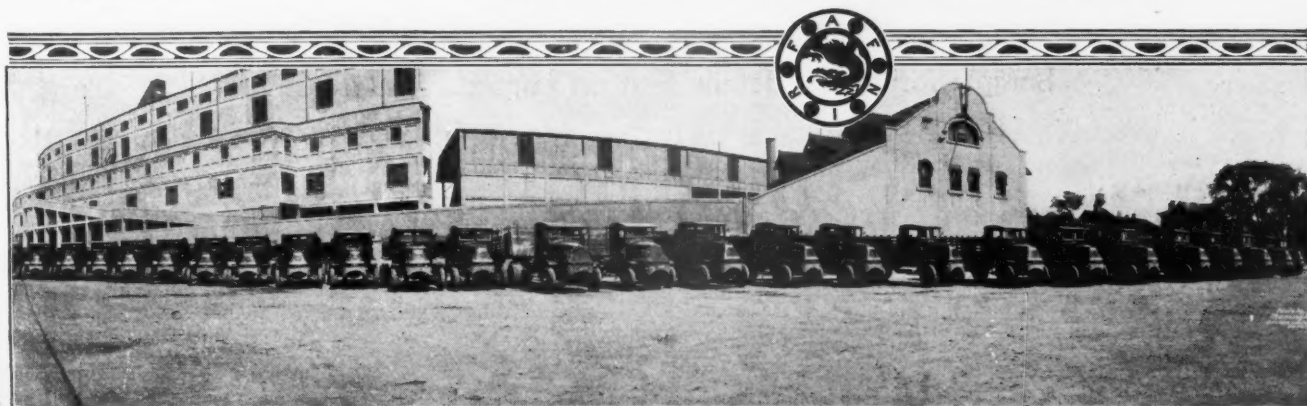
NEW BRITAIN, CONN.

Chicago  
Cleveland

Newark  
Detroit

# FAFNIR BALL BEARINGS

Below, the trucks of the United Fuel and Supply Co., Detroit, Mich. Fafnirs used for replacements.





# Use the Motor Transport Standard Cost System

It will enable you to get accurate information concerning the operation of your trucks.

It will give you a thorough check-up on your drivers and show who among them are careless or inefficient.

It will show whether or not you are getting the service from your trucks which you have a right to expect.

It will help you ascertain just how profitable is your truck installation.

There is nothing complicated or difficult about the Motor Transport Standard Cost System. On the contrary, it is very simple. There are but two forms to be used—a driver's daily route card and a monthly summary sheet. The information recorded on them tells you what you need to know about the operation of your trucks.

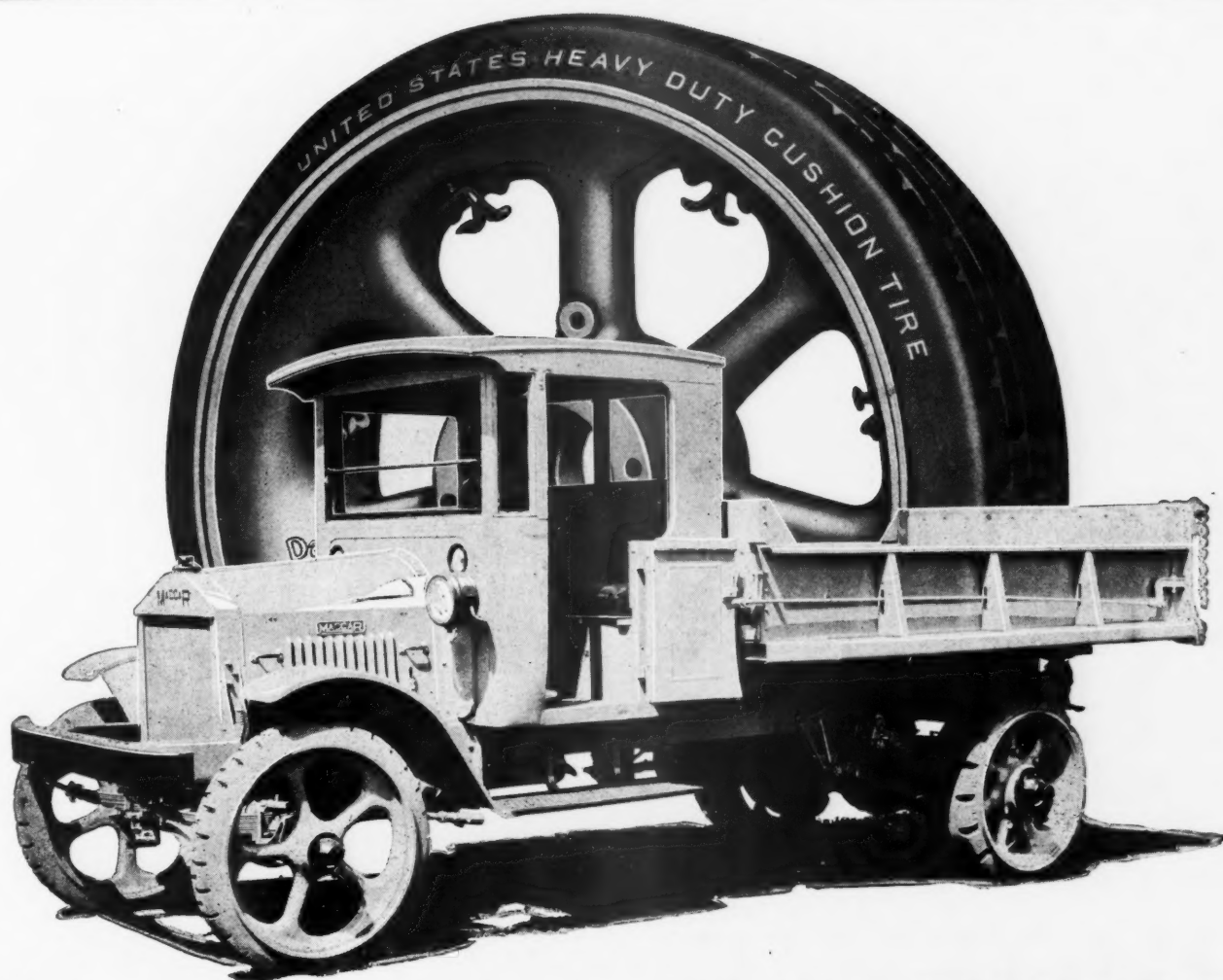
The complete system consists of	{	500 Driver's Cards
		60 Monthly Summary Sheets
		1 Complete Instruction Book
		1 Binder

The Price is Only **\$9<sup>50</sup>**

Sample forms and details sent on request. Address:

**Chilton Class Journal Company**  
Chestnut and 56th Streets Philadelphia

**STRENGTH—LIGHT WEIGHT—DURABILITY**



## **Maccar uses DAYTONS**

Maccar, "The Truck of Continuous Service" uses Dayton Steel Wheels.

Like the Maccar Truck, Dayton Steel Wheels are built to give continuous service. Day after day, year after year, Dayton Steel Wheels meet the most exacting requirements of heavy duty truck service.

The records of prominent fleet owners show that Dayton Steel Wheels increase the life and the earning capacity of their trucks. That's why nearly all the leading truck manufacturers use Dayton Steel Wheels. Specify them on your next order.

THE DAYTON STEEL FOUNDRY COMPANY, Dayton, Ohio

# **Dayton**

**Steel Truck Wheels**

PATENTED

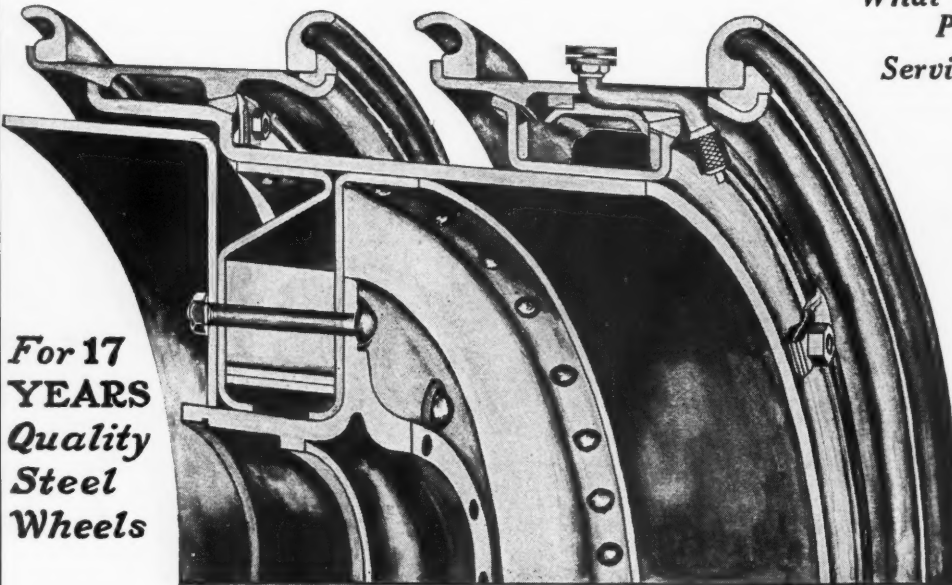
**TIRE ECONOMY—ACCESSIBILITY—APPEARANCE**

# Indestructible Steel Wheels

*What is Expected of a Dual Pneumatic Wheel?*

*Service, Safety and Speed!*

*For 17  
YEARS  
Quality  
Steel  
Wheels*



INDESTRUCTIBLE DUAL PNEUMATIC WHEELS will give your customer increased tire mileage, improved appearance and very important, PERMANENT WHEEL ALIGNMENT AND CONCENTRICITY.

SAFETY is incorporated to a greater degree in INDESTRUCTIBLE DUAL PNEUMATIC WHEELS by a substantial and durable wheel. A wheel that reduces wear and tear on bearings by its permanent positive alignment.

SPEED is obtained wherever used, from the assembly line to the road, as all parts are standard and interchangeable with present wheel equipment. Such as standard rims, clamps, bolts, inflation equipment, hubs, hub bolts and brake drums.

Write us for detailed specifications on Indestructible Wheels for your truck models.

*Steel Wheels for All  
Automotive Purposes*

*Manufactured by*

**INDESTRUCTIBLE WHEEL COMPANY**

LEBANON, INDIANA, U. S. A.

**"WHEELS THAT STAND THE TEST"**

## Jacks for All Types of Busses and Trucks

EQUIPPED WITH PNEUMATIC TIRES

### The No. 18 DOUBLE-LIFT JACK

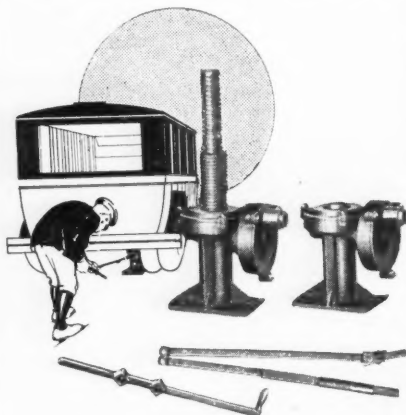
FOR BUSES WITH LOW OVERHANGING BODIES

The modern bus must have a jack with a very low starting height in order to go under the axle when a tire is deflated. The handle of the jack must operate with a rotary motion (in order to avoid the low bus body) and be long enough so that the jack can be pushed into place and operated from behind the bus.

Notice how the following features of the No. 18 meet these requirements:

- 1st. Low starting height, 7 in.
- 2nd. Lift of 9 in.
- 3rd. Long folding handle equipped with semi-universal joint which gives all the advantages of a universal joint but is rigid enough to place the jack in position.
- 4th. Both screws work together, twice as fast as ordinary jacks.

Specifications No. 18. Weight, 19 lbs. Lift, 5 tons. Height of Jack, 7" to 16". Screw Diam.: Outer, 1 1/8"; Inner, 1 1/4".



### The No. 12 DOUBLE-LIFT JACK

FOR HEAVY TRUCKS WITH PNEUMATIC TIRES

The axles on such trucks come close to the ground when a tire is flat, thus necessitating the use of a jack with a low starting height. The 10 inch lift of the No. 12 Reliable insures ample clearance for changing a tire.

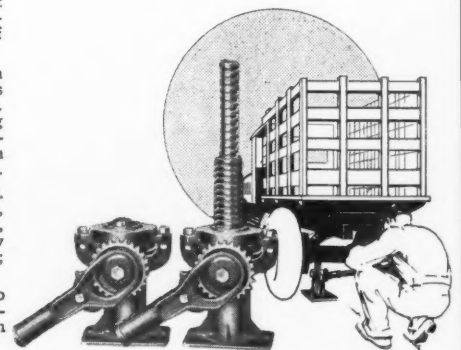
Since the bodies of trucks are high, the operator can insert any length handle desired in the socket of this jack.

This jack operates on the same principle as the No. 18 Bus Jack. The double-acting screws working together result in an unusually rapid jack.

Specifications No. 12. Weight, 17 lbs. Lift, 5 tons. Height of Jack, 8" to 18". Screw Diam.: Outer, 1 1/8"; Inner, 1 1/4".

We will be glad to furnish prices and additional information upon request.

There is a sturdy Reliable Jack for every size car, bus and truck.



**Elite Manufacturing Company**

(Dept. C. C.—2)

**Ashland, Ohio**

# RELIABLE JACKS





**THERE is no doubt that if a quality article and a cheap article were human beings, on your payroll, working side by side, and you saw by comparison the big difference in results, you would quickly fire the cheap article—for you would then clearly see that cheapness is expensive at any price!**

**THE MATHER SPRING COMPANY, TOLEDO, OHIO**

*Makers of scientifically heat-treated springs for the leading passenger car and truck manufacturers in America and Europe.*

## **Selling a Cab with each Chassis is EASY—on this basis!**

If you want to see how easy it is to sell a cab with practically every chassis, try talking along these lines—

Truck operators know they are losing money unless their trucks keep running on schedule, good weather or bad. Delivery requirements take no heed of weather.

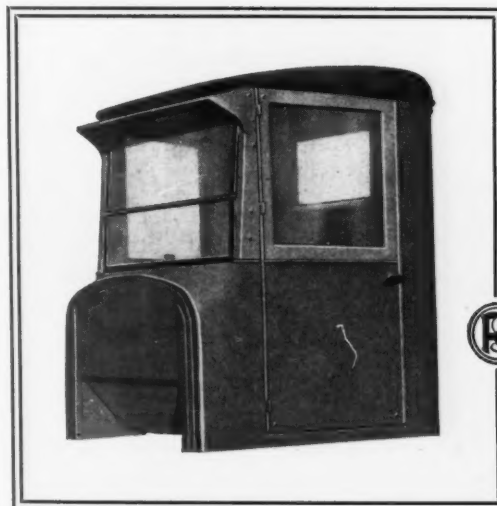
Rain or Shine Cabs keep trucks moving by lessening accidents and increasing driver efficiency in bad weather. "Keep 'em running" is a mighty good sales argument. Use it for profit on Rain or Shine Cabs.

Stocks of Rain or Shine Cabs always "within-a-day" of most dealers. No stock investment. You merely make the sale—then order the cab.

*Write today for the Rain or Shine Cab sales proposition.*

**General Woodwork Corp.**  
Cincinnati, Ohio

*General Motor Coach and Body Division*



# **RAIN OR SHINE CABS**



There is more than just  
"money profit" for you  
in selling the *Original Bosch Horn*

The progressive automotive merchant is constantly on the watch for quality products that will net him good profits and, at the same time, help him build up a quality reputation in his community.

That is why dealers everywhere have been quick to receive the Robert Bosch Horn and to offer it to their trade.

The Robert Bosch Horn (an *original* Bosch product), is already on thousands of fine motor cars. The musical, penetrating tone of this new high-frequency warning signal compels attention whether in crowded thoroughfares or on far-flung country roads.

It is suited, alike, to fine motor cars, motor busses, commercial cars, taxicabs and motor boats. Write for price schedules and agency details for selling Robert Bosch Automotive Equipment.



Original Bosch Automotive Equipment is identified by the trade mark shown above and the full name, "Robert Bosch." Be sure to specify "Robert Bosch" when ordering. Only then can you be sure of getting original and genuine Bosch quality as known the world over since 1887.

Robert Bosch Magneto Co.,  
Inc. (Otto Heins, President),  
119c West 64th Street, New  
York, N. Y. Chicago Branch:  
1302 South Wabash Avenue.

#### NEW PRICES

The Robert Bosch Horn is made in three sizes—one quality.  
"Junior" . . . now . . . \$16  
"Standard" . . . now . . . 21  
"Master" . . . now . . . 25  
(LIST PRICES)

*The Original*  
**Bosch**

ROBERT · BOSCH · MAGNETO COMPANY · INC.

No connection whatsoever with the American Bosch Magneto Corporation

Nearly 36,000,000 square yards of concrete street pavement were placed under contract in 1925

## Over 1000 Cities Laid Concrete Streets Last Year

The reason for this nation-wide popularity of *concrete street pavement* is the fact that it is the finest looking pavement money can buy, and gives greater service value per dollar than any other type.

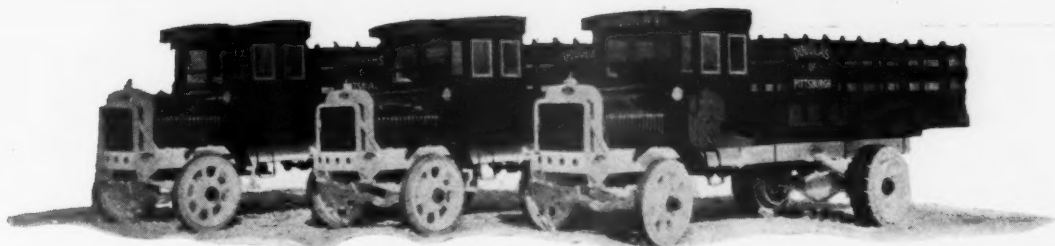
*All of the facts are in our free booklet on "Concrete Streets." Ask for your copy.*

#### PORTLAND CEMENT ASSOCIATION

111 West Washington St.  
Chicago

*A National Organization to Improve  
and Extend the Use of Concrete*

OFFICES IN 30 CITIES



**L**ET us explain why Grammm-Bernstein Trucks mean greater profit for the dealer—and a better investment for his customers. There is a Grammm-Bernstein Truck for every conceivable need. Write us—here's a sales plan that's a money maker.

**GRAMM-BERNSTEIN TRUCK CORPORATION**  
**LIMA** **OHIO**



*24 Years Experience Engineering Trucks*

## The Measure of Your Message

**T**HE measure of your message is the number of actual readers reached by the publications carrying your advertising.

You may buy "9,000 circulation," but is it delivered, or is it merely a "claim" of the publisher?

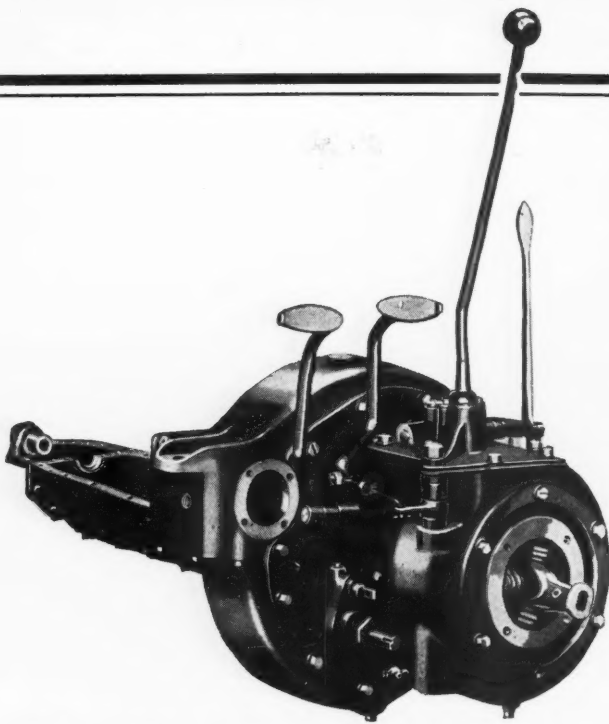
The A. B. C. offers a service that will enable the advertiser and advertising agent to measure every message placed in the leading publications of the United States and Canada.

Every day in all parts of the Continent A. B. C. auditors are checking the records of publishers, and their findings are tabulated in the form of A. B. C. reports.

These reports, by the authentic, reliable, verified data they contain, enable the advertiser to measure exactly how widely his message has been distributed.

*Ask for the latest A. B. C. Report on the Commercial  
Car Journal. It is a member of the A. B. C.*





## No Makeshift—Just the Real Thing!

With heavy-duty Fords—cars and trucks that must perform extraordinary service—there is no adequate substitute for an honest-to-goodness sliding-gear transmission.

That's Himico. **THERE IS NO OTHER.**

For Himico places a Ford on the same basis with any other good sliding-gear chassis. There are no planetary features left to limit load, add friction and complicate operation.

Himico standard low is lower than Ford low. Himico intermediate is a pure addition. Himico high is equivalent to Ford high.

For trucks, there is an additional emergency low gear with a ratio of 42 to 1. It delivers far more smooth vibrationless pulling power than any other device we know.

And all these gears shift smoothly and simply, as in any other high-grade transmission. The Himico clutch, included with every transmission, makes this possible.

Himico does more, sells faster, installs easier and makes more money for the dealer. Every sale means a worth-while profit, and puts a bonus of Ford parts into stock for additional profits.

Are you getting your share of these Himico profits? Here's your chance.

**HIMICO TRANSMISSION** replaces Ford planetary set. Sliding gears, three forward speeds and reverse. Complete for installation, \$137. Emergency Fourth Speed, 42 to 1 (especially for trucks), \$16. Power Takeoff, \$18.

*Write today for our proposition*

**HINKLEY MOTORS, INC.**

P. O. Box J-839

Detroit, Michigan

(Builders of Famous Hinkley Heavy Duty Automotive Engines)

**HIMICO  
TRANSMISSIONS  
POWER PLANTS**

# STEWART WARNER



*for*  
**Safety's  
Sake**

[AND SERVICE TOO]

*Equip With*

*Stewart-Warner*  
**Safety  
Group**

**Bumpers**

**Speedometers**

**Electric Windshield Cleaners**

**Hand Horns**

**Electric Horns**

**Odometers**

✓ **Rear Vision Mirrors**

**Shock Absorbers**

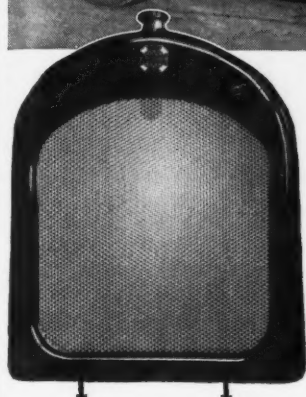
**STEWART-WARNER SPEEDOMETER COR'N**

1826 Diversey Parkway - CHICAGO, U. S. A.

TWELVE MILLION PEOPLE  
ARE TODAY USING  
STEWART-WARNER  
PRODUCTS



This Checker Cab is one of many that standardize on Perfex Radiators for the grueling service of taxi-cab work.



## Perfex Cooling Protects Motor Earning Power

Thousands of Perfex Bronze-Core Radiators are doing their part to keep motors going on profitable work every day. You know, and we have proved it, too, that correct cooling forestalls a great many motor ills. But that sort of cooling means a sound, scientific design built to fit every day working conditions. It means Perfex individual construction.

If you are interested in efficient cooling of hard worked motors, we shall be glad to furnish you with a collection of facts from which you may draw your own conclusions. You can quickly tell whether or not our product and specialized service will fit your situation as it has that of over a hundred other well known manufacturers.

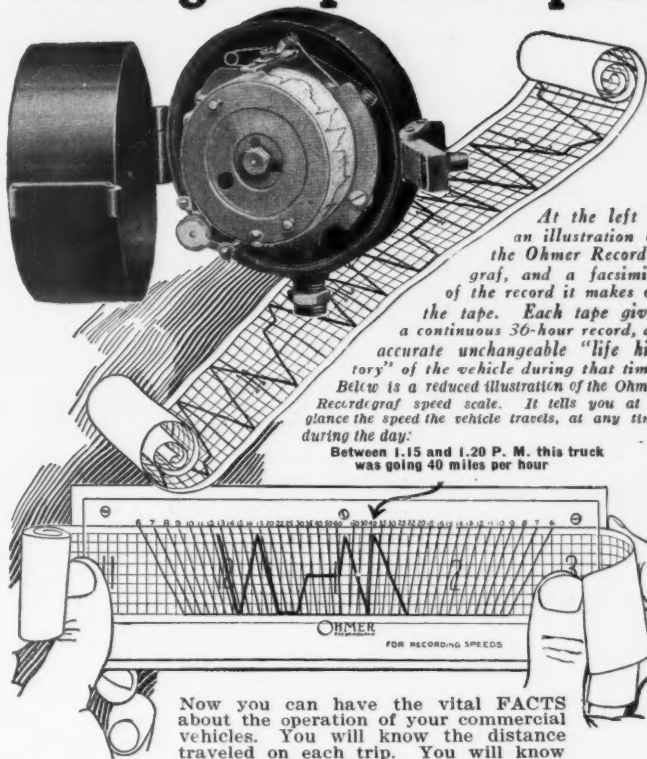
Our engineering department will gladly collaborate with your own or offer a complete designing service if desired. Write us, placing your problems before us.

RACINE RADIATOR COMPANY, Racine, Wis.

Pacific Coast Representative  
ENGINEERING & SALES COMPANY  
24 California St.  
San Francisco, California

**PERFEX**  
THE PERFECT RADIATOR

## A Locked-in Record of Mileage-Stops-Time-Speed



At the left is an illustration of the Ohmer Recordograf, and a facsimile of the record it makes on the tape. Each tape gives a continuous 36-hour record, an accurate unchangeable "life history" of the vehicle during that time. Below is a reduced illustration of the Ohmer Recordograf speed scale. It tells you at a glance the speed the vehicle travels, at any time during the day:  
Between 1.15 and 1.20 P. M. this truck was going 40 miles per hour

Now you can have the vital FACTS about the operation of your commercial vehicles. You will know the distance traveled on each trip. You will know to the minute when each trip started and when it ended. You will know how many stops were made, and how long the vehicle was idle each time. You will know how fast it traveled. You will know whether time was wasted or whether the speed was beyond the bounds of safety. And you will have all these facts under lock and key on a record that cannot be changed or tampered with, that is instantly available only to you, and that can be filed away for future reference.

### The Ohmer Recordograf Gives Them to You

All this vital information is furnished you by the Ohmer Recordograf. It is attached to the instrument board or any other convenient place and is DRIVEN FROM THE TRANSMISSION, MAKING ITS OPERATION POSITIVE AND ACCURATE. The record is automatically made on a tape that is divided into squares representing five minute periods and quarter mile distances. A pencil moves over the tape, making a continuous, accurate record in graphic form of every movement of the vehicle.

### Positive Control of Operation

This Recordograf tape furnishes the information necessary for stopping waste and increasing profits. Trucks can be made to start their day promptly. Drivers' working time is no longer a conjecture. Overtime is reduced. The average speed of the vehicle can be increased if necessary. Overspeeding conducive to accidents and excessive repair bills can be stopped. Drivers' efficiency can be determined. Operating costs can be reduced.

### Get All the Facts

Let us tell you all the facts about the Ohmer Recordograf—How it will save you money, increase your profits, increase the efficiency of truck operation, and give you data that every truck or fleet owner needs. Let us show you how in a surprisingly short time it will return its small initial investment and then continue to pay big dividends indefinitely. Write today for full details.

THE OHMER FARE REGISTER CO.  
Dept. B-1 DAYTON, OHIO



We also manufacture

Fare Registers  
Printing Taximeters  
Atco Taximeters  
Itu6 Odometers  
Odometers  
Truck Auditors  
Fare Boxes

**OHMER**  
REG. U.S. PAT. OFF.  
**RECORDOGRAF**

# COLD WEATHER

Power Loss Chart.			
Power loss with DIXON'S 677 1.5 H.P.			
Power loss with gear-box packed with high grade lubricant <u>without</u> graphite 3.4 H.P.			
1 H.P.	2 H.P.	3 H.P.	4 H.P.

—demands **REAL**  
gear lubrication!

Tests show Dixon's 677  
cuts power losses 56%

Motors have almost as much pep in freezing weather as in mid-summer—but this power doesn't *get to the rear wheels*. It is dissipated between the motor and the rear wheels due to friction caused by cold lubricant in gear box and differential.


Dixon's 677 contains *absolutely pure* flake graphite. Tests prove that at freezing temperature Dixon's 677 consumes 56% less power than the average gear lubricant.

Dixon's eliminates stiff gear shifting—the sure warning of faulty gear lubrication.



It pays to see that your customers get the most out of their trucks and buses. See that they use Dixon's 677 in transmissions and differentials.

Write for the "Dixon Dealer Deal No. 112-G."

Joseph Dixon Crucible Company  
Jersey City, N. J.  Established 1827

# DIXON'S 677

for ALL YEAR ROUND Lubrication

## MOTOR TRANSPORT

Motor Transport is devoted to the development of the art and science of motor transportation as it applies to the transport of commodities by Motor Truck, the transport of passengers by Motor Bus and the transportation of both by Gasoline Railroad Car.

Written for those concerned with the operation of fleets—Motor Transport's mission is to analyze all problems which properly come within its scope—and to assist in the solution of these problems by means of editorial discussion.

The five major problems which the Fleet Operator has to contend with in the handling of his fleet and which Motor Transport helps to solve, are

*Fleet Maintenance*  
*Organization Plans*  
*Correct Costs*  
*Operation of Fleet*  
*Handling of Drivers*

Each issue of Motor Transport contains articles based upon the factors outlined above and these articles are written from first-hand investigations and study by our editors in the field.

Motor Transport is published monthly, on the 10th. The subscription price is \$2.00 per year.

Write for a Sample Copy

**Chilton Class Journal Co.**

Chestnut and 56th Sts. Philadelphia, Pa.



# KELLOGGS

## Help Keep Friends

After a truck is sold and in service, it is the little conveniences which effect economy of operation that make a hit with users.

That is why many manufacturers install a Kellogg engine driven tire pump on every pneumatic job they put out.

When manufacturers do not provide a Kellogg engine driven tire pump as stock equipment, dealers have found that the sale of one helps to make friends of the truck user.

That is why the following makes of trucks either carry Kellogg's as standard equipment or have attachments for them.

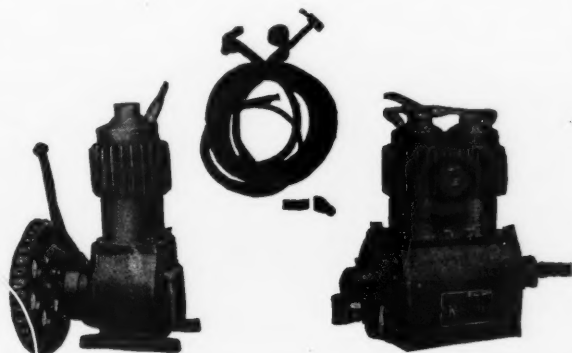
### USERS

Acme	Gotfredson
Advance Rumely	Guilder
American-LaFrance	Hawkeye Dart
American Motor	Huffman
Body	Larrabee
Atterbury	Maccar
Biederman	Mack
Brockway	Maxim
Century	Minneapolis Steel
Clydesdale	Nelson
Coleman	Pierce-Arrow
Commerce	Republic
Corbitt	Ruggles
Day-Elder	Standard
Diamond T	Stewart
Federal	United
Four-Wheel Drive	White
Garford	Wichita
Gary	Winther
G. M. C.	Yellow Coach

## KELLOGG MFG. CO.

Rochester, N. Y.

*Also manufacturers of air compressors  
for service stations and air brakes*



## USERS OF SPICER PROPELLER SHAFTS

(One of a series)



"—without mechanical failure"

ONE great objective was set up before the designers of Yellow Coach. That was to build a vehicle with "the ability to stay in continuous service without danger of mechanical failure."

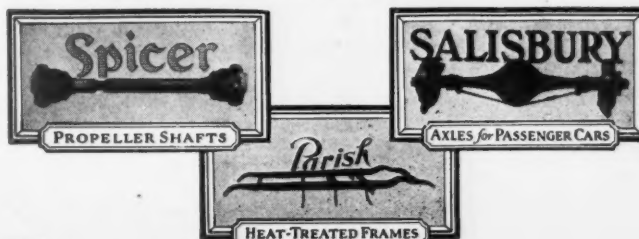
Their decision to use

### Spicer Propeller Shafts

was perfectly logical. For 21 years these units have been giving that kind of service. No other unit used in bus construction has been so thoroughly tried out by time and mileage as Spicer Universals.

## Associated Spicer Companies

Spicer Manufacturing Corporation, South Plainfield, N. J.  
Parish Manufacturing Corporation, Reading, Pa.  
Salisbury Axle Company, Jamestown, N. Y.



No. 3  
4000 lbs.  
6' 4" Lift  
Price  
\$125.00



### Used by Large Fleet Owners Everywhere!

Compare it—point by point.

Used by Rolls-Royce, Ford, Packard, Dodge, Goodyear, Goodrich and others of like importance.

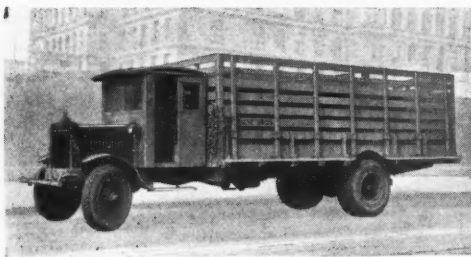
Semi-steel castings, drop forgings, hand forged BBB chain Hyatt bearings. Four sizes.

Booklet describing all four sizes gladly mailed upon request.

**CANTON FOUNDRY & MACHINE CO.**  
CANTON, OHIO

New York Office, 203 E. 15th St.

# CANTON

  
CRANE


### Reduce Sales Resistance!

**I**N the Service truck line for 1926 you will find many features that are exclusive and which enable the Service Distributor to give his customer excess value for every dollar of this investment. The Service Franchise is available in some choice territory—yours may be open—write today for details.

**SERVICE MOTORS, INC., Wabash, Indiana**

*Service*  
MOTOR TRUCKS



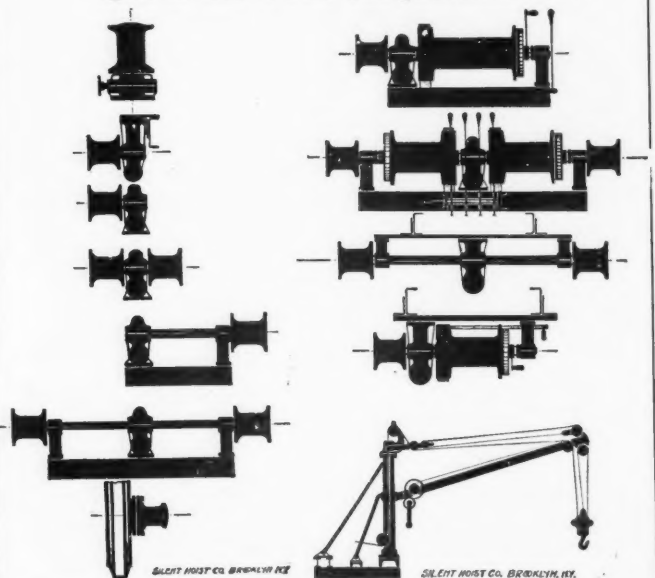
Naceskid Service Chains can be put on securely in two minutes under any (weather) conditions—and without jacking up the truck. They are fastened with a drop-forged hook which cannot freeze up or get dirt-clogged.

Naceskid chains are hand-wrought and lap-welded with the "Nace" twist which produces an easy rolling action and minimizes tire-cutting. It is an absolute insurance against skidding.

Write today for dealer proposition, price lists and discounts covering Naceskid Service Chains. Some excellent dealer territory still open for 1926. Quick action necessary.

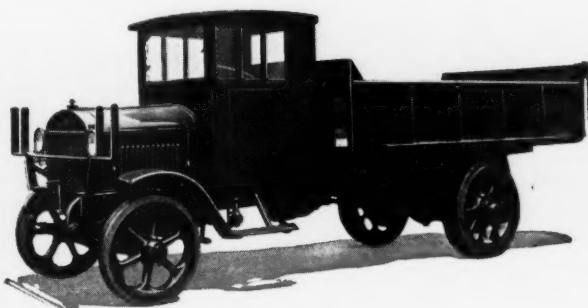
**NACESKID** Service Company  
Chain Trenton, N. J.

**Capstan Winches  
Drum Winches  
Single and Double Models  
Cranes and Derricks  
All Kinds and Types and Sizes  
for Gasoline and Electric Trucks  
Give Us a Chance to  
Quote on Your Requirements!**



Power Winch Equipment Pays for Itself Promptly  
Complete data on standard models sent on request

**SILENT HOIST CO., 302 McDUGAL ST. BROOKLYN, N.Y.**



## Your Cab Selection is Important!

THE cab you pick for your truck may contribute to, or assist in avoiding, serious traffic accidents. It has a lot to do with the rate of turn over among your truck drivers.

Highland Cabs are built by specialists, thoroughly engineered and produced in quantity to sell at a price competitive with that of *any good cab*.

Absence of corner posts or murky celluloid lights provides clear vision and safety. Sliding doors and windows never protrude over the running boards inviting traffic accidents. Doors and windows are quickly and easily adjusted to open, half open or closed position, providing a universal cab for all weather and all climates.

The doors can be opened even when long material overhanging in front lies alongside the cab. They never obscure your signs or advertising. The cab is trim and neat — and there is no upkeep cost. It is as nearly quiet and rattle proof as a cab can be built and stays so.

Look for any of these important points in a hinged door cab built locally and you *will not* find them.

Any truck manufacturer or dealer can supply you with Highland Cabs. Don't take anything except this real cab value. Our local distributors in leading cities mount Highland Cabs on new trucks and trucks already in use. Write for literature and prices.

THE HIGHLAND BODY MFG. CO.  
403 Elmwood Place, Cincinnati, Ohio

# HIGHLAND Cabs



## Take Your Own Deliveries—

Do you look on *your* delivery cost as an item as fixed as taxes or rent, to be charged off at an arbitrary figure?

Delivery costs are more flexible than that: they're fixed by your methods of operating and maintenance. *Which* methods, which drivers *reduce* those costs can promptly be seen from

*Veeder*

HUB ODOMETERS

Advantages in time, upkeep, running costs will come to your notice in the mileage-records of different trucks—checked against the records of your stockkeeper.

These same advantages offered *you*, are just what you can offer your customers—with “*Veeder*.”

REGULAR MODEL (list).....\$20.00  
FORD TRUCK MODEL..... 15.00

Informative circular on request.

The Veeder Mfg. Co.  
10 Sargeant Street Hartford, Conn.

*Sales and Service Stations in*

Atlanta, Ga.  
Baltimore, Md.  
Boston, Mass.  
Buffalo, N. Y.  
Chicago, Ill.  
Cincinnati, Ohio  
Cleveland, Ohio  
Dallas, Texas  
Denver, Colo.  
Detroit, Mich.  
Indianapolis, Ind.  
Kansas City, Mo.  
Los Angeles, Cal.  
Montreal, Quebec

New Orleans, La.  
New York, N. Y.  
Philadelphia, Pa.  
Pittsburgh, Pa.  
Providence, R. I.  
Rochester, N. Y.  
St. Louis, Mo.  
St. Paul, Minn.  
San Francisco, Cal.  
Syracuse, N. Y.  
Tacoma, Wash.  
Toronto, Ontario  
Washington, D. C.  
—and other cities.



# NORTHEASTER



**\$7.50**

A Real Magnetic Horn at a Low Price

© NECCO 1925

*The Horn That Lasts*

NORTH EAST ELECTRIC CO. The Standard for Dependability and Long Life. NORTH EAST SERVICE INC. Starting, Generating & Ignition Equipment - Horns - Speedometers. ROCHESTER - ATLANTA - CHICAGO - DETROIT - NEW YORK - KANSAS CITY - SAN FRANCISCO - PARIS - LONDON - TORONTO



The dominant high quality magneto for Buses, Trucks, Fire Engines, Tractors, Motor Boats and Stationary Engines.

Catalog on request



EISEMANN MAGNETO CORP'N  
165 Broadway, N. Y.  
DETROIT, SAN FRANCISCO, CHICAGO

# EISEMANN

## ELECTRICAL EQUIPMENT




# FIRST

in all recorded tests of quality and endurance in the engines of airplanes, passenger cars, motor trucks, tractors, motorcycles and speedboats.

# Thompson

# Silcrome Valves

THE STEEL PRODUCTS COMPANY  
Manufacturers of Thompson Products

Main Plant CLEVELAND  
Michigan Plant DETROIT

Thompson Valves, King, Shackle and Tie-Rod Bolts, Tappets, Frag Links, Tie Rods, Starting Cranks and Brake-Rod Assemblies

No scientist would consider "Judge" as an authority on science, however much he might enjoy its humor.

No engineer would be influenced by engineering discussions in the newspaper.

No automobile owner reads trade news for consumer information.

No automotive dealer examines general media for automotive news.

Every man to his trade and every trade to its publications.

Reaching the trade through the trade press is reaching the user through his authority.

## Chilton Class Journal Company

Publishers of

Automotive Industries, Motor World Wholesale, Motor Age, Automobile Trade Journal, Commercial Car Journal, Motor Transport, Chilton Automobile Directory, The Automobile Trade Directory, Chilton Tractor & Equipment Journal for Fordson Dealers.



## Standardization!

In that one word you have the key to profits in the motor truck field.

Our new franchise, backed by 16 years' experience, does not require you to stock parts—or put your money into anything you cannot see as good business.

We have standardized our trucks; now we have put our sales franchise on the same plane. Can we say more?

Write us today for details!

**The United States Motor Truck Co.**

CINCINNATI, OHIO

Established  
1909

Capitalization  
\$1,750,000



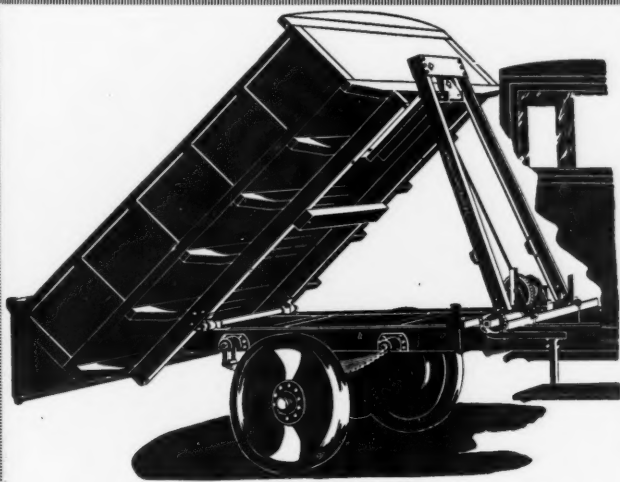
Again! Our sales keep increasing—because our claims of superiority are exactly true. Weatherproof Cabs do not drum, or rattle, or leak—their windows do not stick. Feature for feature, dollar for dollar, they are a remarkable value. Send for specifications and prices.

## Weatherproof

**Weatherproof Body Corporation**

438 Shawwassee St., Corunna, Michigan

Builders of Truck Cabs, Bus Bodies, Automobile Tops, Passenger and Commercial Bodies



## ROCK HAND HOIST

A well designed and carefully built hand hoist for motor truck dump bodies.

Cut gears are used on the winch.

Can be mounted on any width of chassis without change.

TYPE G for bodies up to 1½ ton capacity, occupies 5" to 6½" space. Price without body hinge...\$58.00

With body hinge .....\$65.00

TYPE K for bodies up to 5 ton capacity, occupies 7" to 8¼" space. Price without body hinge.....\$75.00

With body hinge .....\$85.00

PRICES F. O. B. WATERLOO, N. Y.

Gov't tax to be added

**ROCK MANUFACTURING CO., Waterloo, N. Y.**

## Remarkable Opportunity to buy Good used WHITE TRUCKS at Unusual Saving

**10** USED White 5 ton dump trucks equipped with standard White hoists and bodies also wood and Heil hoists and bodies.

These trucks are all 1925 Models and have seen but little service.

Excellent condition.

Price most attractive for quick sale.

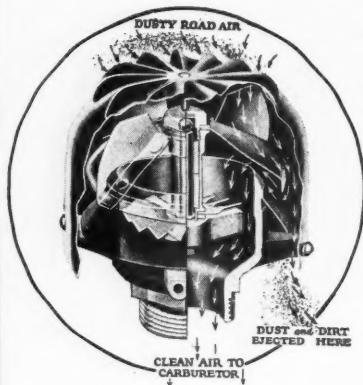
Address Box 100

**Commercial Car Journal**

Chestnut and 56th Streets

Philadelphia, Pa.

## Costs But Little



— Works for  
Nothing  
— Saves You  
Much

A United Air Cleaner on any truck immediately cuts down repair bills, ends carbon troubles, saves replacements, prevents truck idleness, and increases hauling efficiency.

## The UNITED AIR CLEANER

—leads all in simplicity, dependability and dust exclusion. It keeps 99% of the road dust out of the motor—requires no oil, no water, no cleaning, no emptying, no attention whatever for the life of the motor. Guaranteed. 5 years' successful record. Used by more than 100 manufacturers.

WRITE FOR PRICES

United Manufacturing & Distributing Co.  
9704 Cottage Grove Ave. CHICAGO, ILL.

## HALE-KILBURN Motor Bus Seats



are the result of 40 years' experience in designing and making Vehicle Seats.

Soft, Luxurious  
Springwork  
Pressed Steel Supports

H. & K. Patent  
Space Saving Feature  
gives 1½ inches more  
knee space for each passenger.

No. 208 De Luxe Seat With Spring  
Cushions and Auxiliary Pads

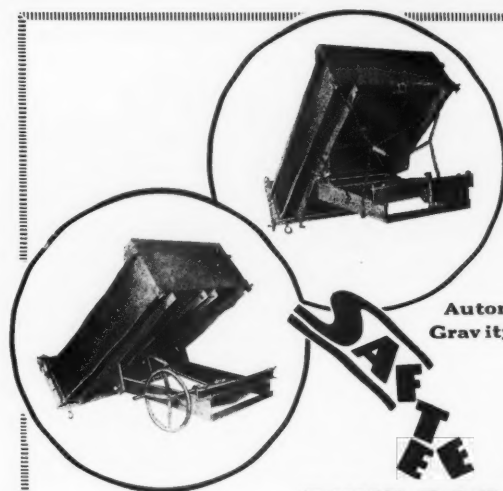
## HALE-KILBURN COMPANY

GENERAL OFFICES AND WORKS:  
1800 Lehigh Avenue, Philadelphia

SALES OFFICES:

30 Church St., New York  
McCormick Bldg., Chicago  
Railway Exchange Bldg., St. Louis

Candler Bldg., Atlanta, Ga.  
903 Monadnock Bldg., San Francisco  
320 S. San Pedro St., Los Angeles



Hand  
Operated Type

Automatic  
Gravity Type

## DUMP BODIES

Two fast sellers—hand or automatic dumping—well designed—well built—safe to operate. Non-racking—non-rattling. A real body.

Send for Our Literature

Ditwiler Mfg. Co.  
Galion, Ohio

## Motor Transport

The National Magazine for the  
Motor Truck and Bus Operator

Deals editorially with the fleet owner's problems of

**FLEET MAINTENANCE  
ORGANIZATION PLANS  
CORRECT COSTS  
OPERATION OF FLEET  
HANDLING OF DRIVERS**

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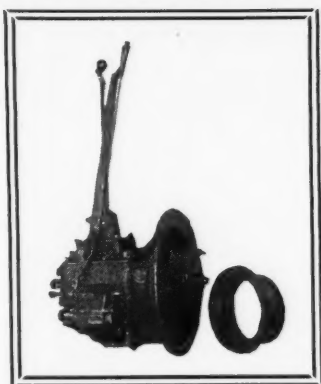
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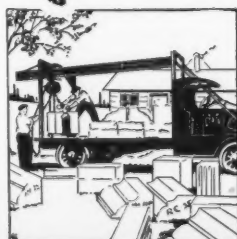
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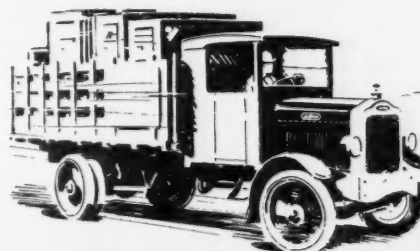
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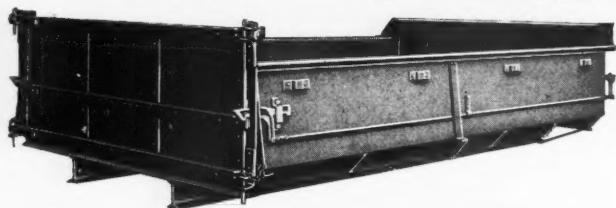
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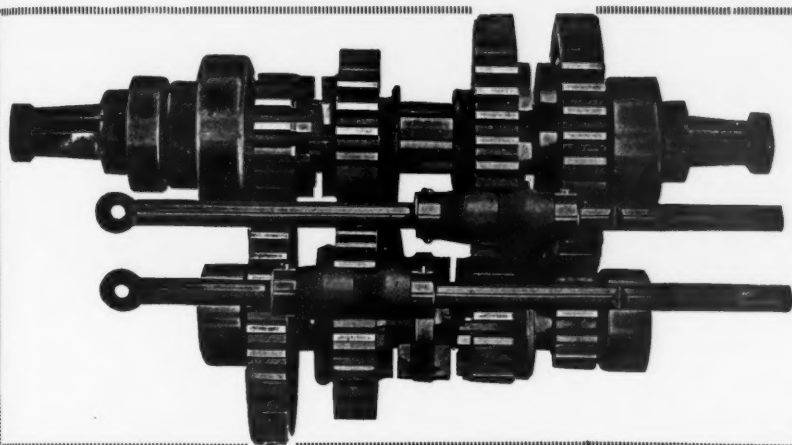
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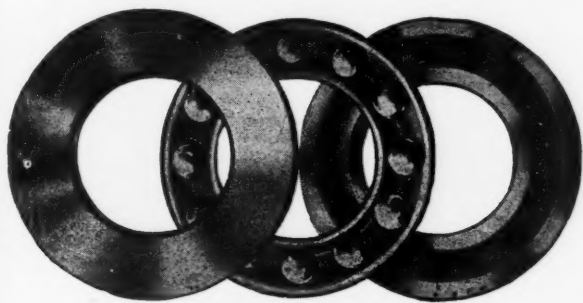
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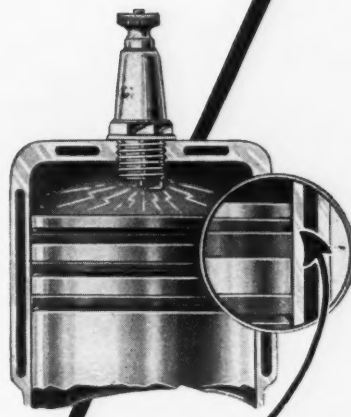
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in preventing crankcase dilution by the effective method of inverting top NO-LEAK-O ring (see diagram). The unvaporized gasoline and coal oil is trapped in the receptive 45° angle groove and forms a packing against itself. On the exhaust stroke it is forced out with the burned gas.

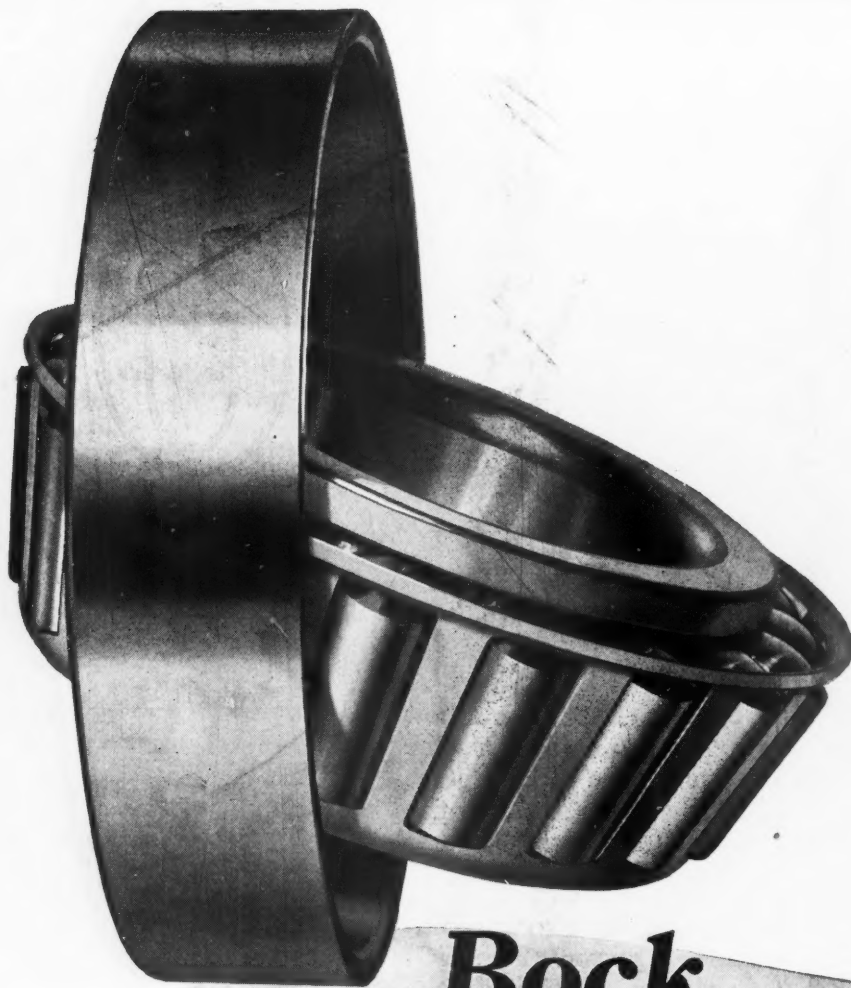
The complete NO-LEAK-O installation is most effective, not only in preventing crankcase dilution but also in maintaining high compression and maximum power. The NO-LEAK-O grooves refill with fresh oil on each stroke and the filled grooves act as a seal or packing between piston and cylinder wall and, because of their depth, hold sufficient oil to act as reservoirs and maintain a positive oil seal.

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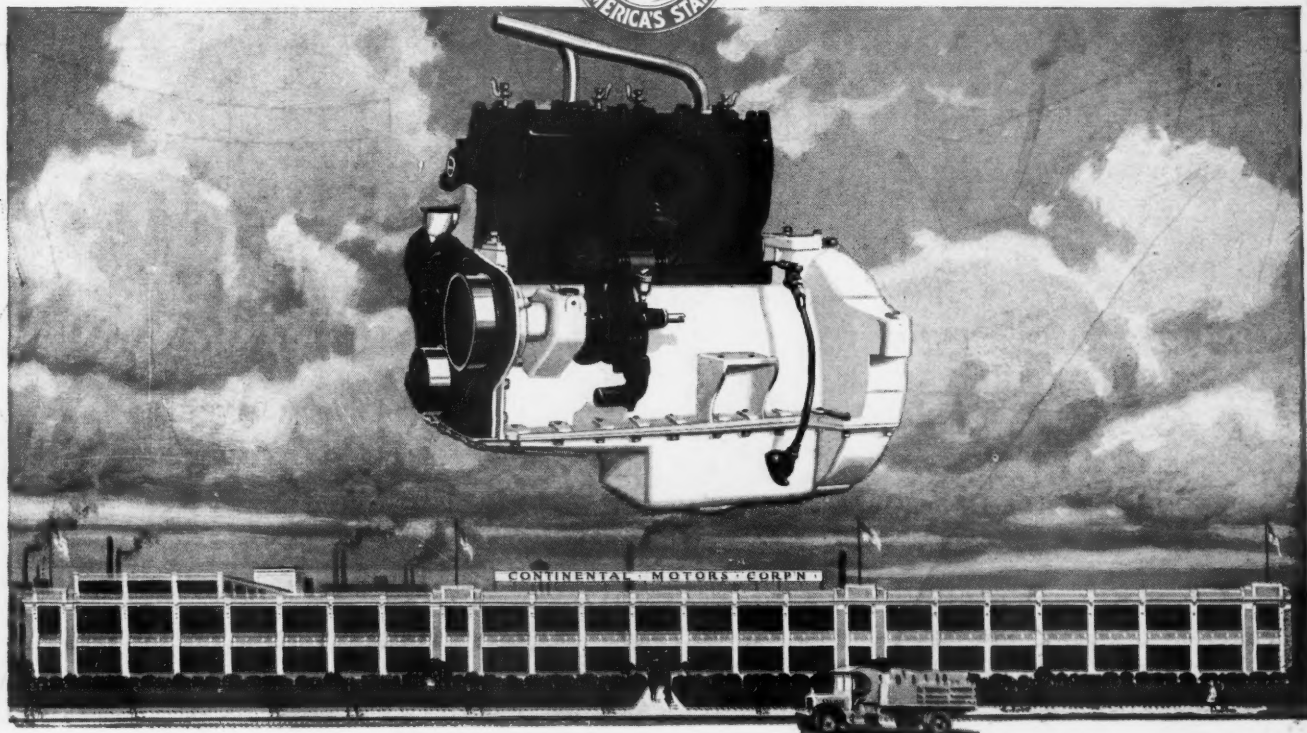
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